The influence of early work experiences undertaken before leaving second level education on the socio-economic outcomes of school leavers in the Republic of Ireland

Delma V. Byrne

Degree of Doctor of Philosophy (PhD)
The University of Edinburgh
2008

Declaration

I declare

(a) that the thesis has been composed by the candidate, and

(b) either that the work is the candidate's own, or, if the candidate has been a member of a research group, that the candidate has made a substantial contribution to the work, such contribution being clearly indicated, and

(c) that the work has not been submitted for any other degree or professional qualification except as specified.

Signature

Abstract

Young people increasingly engage in work experience while still in second level education, and these 'early work experiences' can be acquired through part time job holding or as school organized work experiences as part of a wider programme of studies. This dissertation examines the characteristics of a representative sample of school leavers who participate (or not) in early work experiences in terms of individual level and school level characteristics. The influence of early work experiences on short-term education and labour market outcomes are then examined. Two main theoretical approaches are considered: developmental and allocative. The first approach emphasizes the role of early work experience in allocative processes in labour market entry and draws on social capital theory, network theory and signaling and screening approaches. These frameworks guide the empirical analyses. The dominant statistical methodologies used to analyse the data from the 2003 Irish School Leaver Survey were conventional regression techniques in a multilevel framework with some econometric adjustment for selection bias. The results indicate that both allocative and developmental approaches are useful for examining the influence of early work experience on short-term outcomes, but points to selection bias in these types of early work experiences, which have the greatest influence on short-term outcomes.

Table of Contents

List of Tables

List of Figures

Acknowledgements

There are many people to whom thanks is due for supporting me in this dissertation. First and foremost, I wish to express thanks and gratitude to Professor David Raffe and Cathy Howieson for their encouragement and support while supervising this dissertation and for offering their time so freely to me. It has been a great opportunity for me to work closely with you both.

Secondly, I wish to thank my ex-colleagues at the Centre for Educational Sociology, in particular Dr. Cristina Iannelli, Professor Jenny Ozga and Professor Martin Lawn for offering me friendship, encouragement and support, as well as stimulating and lively wide ranging academic debates! I also wish to thank Dr. Emer Smyth and my other colleagues at the Economic and Social Research Institute. Although she was not required to do so, Emer has been so generous in supporting me through this research. I am also grateful to Dr. Selina McCoy and Dr. Dorothy Watson for providing me with access to the data and advice on which this dissertation is based.

Thirdly, I would like to acknowledge the assistance of the Combat Poverty Agency PhD Fellowship 2003-2006, without which this dissertation would not have been possible.

A particular word of thanks goes to my parents; Tommy and Nuala, for providing me with constant emotional support while I was in Scotland, but also for never letting me go to school without knowing my times tables and spelling when I was little! I would like to thank Eric (Sid), my husband, for his unyielding support and belief in me, and I look forward to our future together. Finally, to my siblings Susie, Davy, Linda, and Patrick and to my friends, I cannot explain how your patience, kindness, generosity, understanding, unfailing support and kind words have contributed to the completion of this dissertation, thank you all so much.

For Emer Champ Bracken, who we all miss so much.

Introduction

This dissertation aims to examine the influence of early work experiences undertaken before leaving school through part time jobs or school organised work experiences, on the education and labour market outcomes of a representative sample of school leavers in the Republic of Ireland. In policy terms, there seems to be a paradox in relation to early work experiences acquired by young people before leaving school. Part time jobs undertaken separately from school by second level students at all stages is now widespread (McCoy and Smyth, 2004; Morgan 2003). On the one hand, policy is aimed at prohibiting or reducing the number of hours that young people work in their part time jobs. On the other, programmes currently on offer in the curriculum at upper second level education provide school organised work experience, with the aim to facilitate knowledge of the world of work. In all, 43,000 students in upper second level education engage in a school organised work experience each year as part of these programmes. In addition to the provision of work experience through the education system, the promotion of links between schools and businesses are encouraged by other agencies such as 'Junior Achievement', 'Youth Enterprise Ireland' or 'Young Entrepreneurs' as well as a number of Area Partnerships and Businesses in the Community (National Employment Action Plan 2003-2006). It is from this assessment that the focus of this dissertation has arisen.

This paradox in relation to the acquisition of early work experiences before leaving school became clear to me while I was working as a Research Assistant at the Economic and Social Research Institute (ESRI) in the Republic of Ireland on an assessment of Transition Year, an optional programme at upper secondary level leading to a three-year senior cycle that offers work experience as part of the curriculum. Part of the research design involved qualitative interviews with Transition Year students who engaged in work experience as part of the programme, and a number of aspects of these experiences were examined such as the prevalence, organisation, delivery, preparation and nature of the work experiences as well as the perceived effectiveness of these work experiences. A distinct finding from the

interviews was that a number of students used their part time job for their work experience as part of the programme. At the same time, another colleague had been examining work experiences gained through part time jobs and found a negative impact on attainment when young people engaged intensively in such experiences, encouraging a leading international fast food chain to make the decision not to employ young people that are in an examination year at school.

This dissertation is also motivated by the incidence of 'double status positions' or simultaneous activity in education and employment among people of all ages that has been the focus of a number of recent sociological studies. While largely under-researched in relation to young people, this 'double status' trend is particularly evident among young people in second level education who often simultaneously combine education and employment. Not only has 'work experience' at upper second level education become a component of the curriculum, at times subject to examination and certification, but in addition, it is now very common for students in full time second level education to hold a part time job during term time. Nevertheless, despite good labour market prospects for school leavers, unemployment and job instability remain a defining feature of some young peoples' passage from school and it is unclear how and if these early work experiences increase attachment or stability in the world of work.

This dissertation seeks to examine participation in early work experiences before leaving school - part time jobs (PTJ) and school organised work experience (SCHWK) – and to examine if and how these different types of early job experience are beneficial in getting a job for different types of school leavers. The main purpose is to delineate the characteristics of those who participate in different types of early work experiences before leaving school according to gender, an array of family socio-economic background variables including parental education levels, parental social class background, household employment and family structure, while also taking into account school characteristics (school type, school gender, average socio-economic mix), and characteristics of the region in which school leavers live, (such as using a measure of the local area socio-economic disadvantage); and to examine

the influence of these early work experiences on later socio-economic outcomes such as employment and education labour market outcomes, particularly in terms of reducing the risk of unemployment. These analyses aim to deduce whether different types of early work experiences undertaken before leaving school have similar effects on the educational and labour market outcomes of school leavers. Furthermore, a key policy question asks whether work experience connected to the curriculum confers greater benefits in the labour market than work that is not connected to school.

A study of the characteristics of participants in early work experiences and their subsequent outcomes is interesting and timely for a number of reasons. Firstly, little is known about the early work experiences of young people while attending second level education. Studies of part time jobs are still in their infancy and little is known about the effects of curriculum differentiation at upper second level education, which includes a work experience component. Secondly, little is known about early work experiences undertaken before leaving school in the Irish institutional context but also in other OECD countries, which is surprising because (a) it seems that an increase in part time job holding is common among youth in other OECD countries and (b) the OECD (2000) recommend widespread opportunities for young people to combine workplace experience with education as a key feature of 'effective transition systems'. Thirdly, modern developed societies have witnessed a general expansion of 'mass' education resulting in the creation of linkages between education and work, yet the actual mechanism by which these linkages occur - participation in school organised work experiences - receives little attention. Finally, despite favourable labour market conditions for young people, the youth unemployment rate continues to be approximately double that of the adult rate of unemployment (OECD 2000). While rates of Irish youth unemployment have considerably reduced from 25 per cent in 1994; the rate of 8.2 per cent today remains similar to the EU average but almost double the overall employment rate. State education policy assumes that by providing for students of different aptitudes and orientations through national intervention programmes such as the Leaving Certificate Applied and Leaving Certificate Vocational Programmes which have a

work experience component, that all young people are being led towards gainful employment, adult status and social integration. But is this actually the case? Do programmes with a work experience component help young people who are already deemed 'educationally disadvantaged' or do they in fact contribute to their marginalisation by leading them towards a more uneven labour market segment? The analyses in this dissertation aim to contribute to the broader debate about whether and how much experience of the world of work can influence subsequent labour market outcomes.

The chapters of the dissertation are outlined as follows. Chapter 1 presents the theoretical framework which outlines that while a vast body of theoretical literature has addressed the transition from school to work in terms of the relationship between educational attainment and socio-economic attainment; schooling and socio-economic outcomes; schooling and life chances (Muller and Shavit 1998, Brown and Sessions 1999); much less attention has been paid to the different types of curriculum that is delivered and components of education that is received at second level education in Irish context. The main theoretical models concerning the area of early work experiences acquired before leaving school can be broadly distinguished between 'developmental' and 'allocative' processes. In the dissertation, the main theoretical models concerning the area of early work experiences acquired before leaving school were broadly divided under two headings; 'developmental' and 'allocative' explanations, but were also cross cut by theories relating to curriculum differentiation. The 'developmental' explanations relate early work experiences to the acquisition of human capital formation, particularly in terms of occupational formation, thinking about the future, and the acquisition of knowledge and skills that are recognisable in the labour market. Allocative explanations on the other hand are concerned with explaining the role of different types of education and early work experience in allocative processes in labour market entry and draw on social capital theory, network theory and signalling and screening theories. Rather than generating detailed hypotheses, these two approaches were used to guide the empirical analyses carried out.

In an attempt to bring the literature on early work experiences and curriculum differentiation together, Chapter 2 outlines developments in young people's early work experiences from a time of child labour to a time when work is provided as part of the curriculum at second level education. It places early work experiences in a sociological context in the Republic of Ireland from the eighteen hundreds onwards. It offers an historical (albeit brief) account of the interplay between youth, work and schooling in terms of social, cultural, economic and political developments in order to answer the question 'how did we get to where we are today'. The perspective is historical, institutional and at times comparative.

Chapter 3 provides a comparative setting for the study of early work experiences undertaken by young people. It considers the transition system of Ireland, with reference to international systems. In doing so, particular attention is placed on estimates of participation in part time jobs and the provision of school organised work experiences across OECD countries in an attempt to focus on the differences and commonalities in the provision of early work experiences in OECD countries

Chapter 4 provides an overview of the data and the methodological choices that have been made in the thesis. It outlines how the sampling of the data used guided the analyses of the data in terms of the methodology being used. Furthermore, it provides an overview of the statistical methodologies used, and provides a description of the variables.

Chapter 5 provides an overview of the Irish second level education system, placing particular emphasis on curriculum differentiation at upper senior cycle. In doing so, it examines the characteristics of young people who participate in different programmes currently on offer at upper second level as a context for examining the influence of experience of work before leaving school. In doing so, it considers whether theories of class differentiation in relation to curriculum differentiation can be applied to the Irish case.

Chapter 6 considers the determinants of having an early work experience before leaving school. In doing so, it considers an array of individual characteristics and school level characteristics as potential determinants of acquiring an early work experience before leaving school. While contributing to the broader debate about who works before leaving school, when they work and what type of work is undertaken (part time job or school organised work experience), within this debate I make several important refinements. Firstly, this chapter broadens the outcome of interest from part time job holding in second level to the conceptualisation of work histories of young people before leaving school. Most studies consider part time job holding to be the only source of work experience that young people acquire before leaving school. There are compelling reasons as to why the examination of work histories undertaken while at school may have consequences on labour market outcomes. The most obvious of these is the influence on educational attainment and the pathway being pursued in second level education. Secondly, in addition to considering the characteristics of school leavers who have ever held a term time job during second level education, the timing of these work experiences are also considered according to a range of characteristics. Thirdly, by using a measure of socio-economic disadvantage in the area that the young person lives, I provide a more detailed regional dimension to the study of early work experiences than what has been used before. This chapter aims to evaluate the relative merits of structural and individual explanations for participation in early work experience before leaving school while appraising the persistence of socio-economic background factors in shaping participation in early work experience before leaving school.

Chapter 7 considers the influence of early work experiences on educational outcomes, both during second level schooling and upon completion of second level schooling. In doing so, this chapter considers three aspects of early work experiences that have been neglected in prior research. Firstly, I broaden an examination of early work experiences to include participation in school organised work experiences alongside participation in part time jobs during term time. This is an important extension now that work experience is provided as part of the curriculum in order to counteract educational disadvantage. It also has implications for theoretical

arguments relating to the reproduce of inequality through the education system. Secondly, in addition to considering the characteristics of school leavers who have ever held a term time job during second level education, the timing of these work experiences are also considered according to a range of characteristics. Thirdly, by using school level characteristics and a measure of socio-economic disadvantage in the area that the young person lives, I provide a more detailed contextual dimension to the study of early work experiences than what has been used before.

Chapter 8 considers the influence of early work experiences on subsequent labour market outcomes, considering entry into and survival in employment (versus unemployment) as well as the influence of early work experiences on job search strategies and conditions of employment.

Finally, Chapter 9 marks the final chapter of the dissertation in which the theories and main findings are discussed. It provides a summary of the empirical results and offers some considerations about the policy implications of the results presented in the dissertation.

Introduction

This dissertation aims to examine the influence of early work experiences undertaken before leaving school through part time jobs or school organised work experiences, on the education and labour market outcomes of a representative sample of school leavers in the Republic of Ireland. In policy terms, there seems to be a paradox in relation to early work experiences acquired by young people before leaving school. Part time jobs undertaken separately from school by second level students at all stages is now widespread (McCoy and Smyth, 2004; Morgan 2003). On the one hand, policy is aimed at prohibiting or reducing the number of hours that young people work in their part time jobs. On the other, programmes currently on offer in the curriculum at upper second level education provide school organised work experience, with the aim to facilitate knowledge of the world of work. In all, 43,000 students in upper second level education engage in a school organised work experience each year as part of these programmes. In addition to the provision of work experience through the education system, the promotion of links between schools and businesses are encouraged by other agencies such as 'Junior Achievement', 'Youth Enterprise Ireland' or 'Young Entrepreneurs' as well as a number of Area Partnerships and Businesses in the Community (National Employment Action Plan 2003-2006). It is from this assessment that the focus of this dissertation has arisen.

This paradox in relation to the acquisition of early work experiences before leaving school became clear to me while I was working as a Research Assistant at the Economic and Social Research Institute (ESRI) in the Republic of Ireland on an assessment of Transition Year, an optional programme at upper secondary level leading to a three-year senior cycle that offers work experience as part of the curriculum. Part of the research design involved qualitative interviews with Transition Year students who engaged in work experience as part of the programme, and a number of aspects of these experiences were examined such as the prevalence, organisation, delivery, preparation and nature of the work experiences as well as the perceived effectiveness of these work experiences. A distinct finding from the

interviews was that a number of students used their part time job for their work experience as part of the programme. At the same time, another colleague had been examining work experiences gained through part time jobs and found a negative impact on attainment when young people engaged intensively in such experiences, encouraging a leading international fast food chain to make the decision not to employ young people that are in an examination year at school.

This dissertation is also motivated by the incidence of 'double status positions' or simultaneous activity in education and employment among people of all ages that has been the focus of a number of recent sociological studies. While largely under-researched in relation to young people, this 'double status' trend is particularly evident among young people in second level education who often simultaneously combine education and employment. Not only has 'work experience' at upper second level education become a component of the curriculum, at times subject to examination and certification, but in addition, it is now very common for students in full time second level education to hold a part time job during term time. Nevertheless, despite good labour market prospects for school leavers, unemployment and job instability remain a defining feature of some young peoples' passage from school and it is unclear how and if these early work experiences increase attachment or stability in the world of work.

This dissertation seeks to examine participation in early work experiences before leaving school - part time jobs (PTJ) and school organised work experience (SCHWK) – and to examine if and how these different types of early job experience are beneficial in getting a job for different types of school leavers. The main purpose is to delineate the characteristics of those who participate in different types of early work experiences before leaving school according to gender, an array of family socio-economic background variables including parental education levels, parental social class background, household employment and family structure, while also taking into account school characteristics (school type, school gender, average socio-economic mix), and characteristics of the region in which school leavers live, (such as using a measure of the local area socio-economic disadvantage); and to examine

the influence of these early work experiences on later socio-economic outcomes such as employment and education labour market outcomes, particularly in terms of reducing the risk of unemployment. These analyses aim to deduce whether different types of early work experiences undertaken before leaving school have similar effects on the educational and labour market outcomes of school leavers. Furthermore, a key policy question asks whether work experience connected to the curriculum confers greater benefits in the labour market than work that is not connected to school.

A study of the characteristics of participants in early work experiences and their subsequent outcomes is interesting and timely for a number of reasons. Firstly, little is known about the early work experiences of young people while attending second level education. Studies of part time jobs are still in their infancy and little is known about the effects of curriculum differentiation at upper second level education, which includes a work experience component. Secondly, little is known about early work experiences undertaken before leaving school in the Irish institutional context but also in other OECD countries, which is surprising because (a) it seems that an increase in part time job holding is common among youth in other OECD countries and (b) the OECD (2000) recommend widespread opportunities for young people to combine workplace experience with education as a key feature of 'effective transition systems'. Thirdly, modern developed societies have witnessed a general expansion of 'mass' education resulting in the creation of linkages between education and work, yet the actual mechanism by which these linkages occur - participation in school organised work experiences - receives little attention. Finally, despite favourable labour market conditions for young people, the youth unemployment rate continues to be approximately double that of the adult rate of unemployment (OECD 2000). While rates of Irish youth unemployment have considerably reduced from 25 per cent in 1994; the rate of 8.2 per cent today remains similar to the EU average but almost double the overall employment rate. State education policy assumes that by providing for students of different aptitudes and orientations through national intervention programmes such as the Leaving Certificate Applied and Leaving Certificate Vocational Programmes which have a

work experience component, that all young people are being led towards gainful employment, adult status and social integration. But is this actually the case? Do programmes with a work experience component help young people who are already deemed 'educationally disadvantaged' or do they in fact contribute to their marginalisation by leading them towards a more uneven labour market segment? The analyses in this dissertation aim to contribute to the broader debate about whether and how much experience of the world of work can influence subsequent labour market outcomes.

The chapters of the dissertation are outlined as follows. Chapter 1 presents the theoretical framework which outlines that while a vast body of theoretical literature has addressed the transition from school to work in terms of the relationship between educational attainment and socio-economic attainment; schooling and socio-economic outcomes; schooling and life chances (Muller and Shavit 1998, Brown and Sessions 1999); much less attention has been paid to the different types of curriculum that is delivered and components of education that is received at second level education in Irish context. The main theoretical models concerning the area of early work experiences acquired before leaving school can be broadly distinguished between 'developmental' and 'allocative' processes. In the dissertation, the main theoretical models concerning the area of early work experiences acquired before leaving school were broadly divided under two headings; 'developmental' and 'allocative' explanations, but were also cross cut by theories relating to curriculum differentiation. The 'developmental' explanations relate early work experiences to the acquisition of human capital formation, particularly in terms of occupational formation, thinking about the future, and the acquisition of knowledge and skills that are recognisable in the labour market. Allocative explanations on the other hand are concerned with explaining the role of different types of education and early work experience in allocative processes in labour market entry and draw on social capital theory, network theory and signalling and screening theories. Rather than generating detailed hypotheses, these two approaches were used to guide the empirical analyses carried out.

In an attempt to bring the literature on early work experiences and curriculum differentiation together, Chapter 2 outlines developments in young people's early work experiences from a time of child labour to a time when work is provided as part of the curriculum at second level education. It places early work experiences in a sociological context in the Republic of Ireland from the eighteen hundreds onwards. It offers an historical (albeit brief) account of the interplay between youth, work and schooling in terms of social, cultural, economic and political developments in order to answer the question 'how did we get to where we are today'. The perspective is historical, institutional and at times comparative.

Chapter 3 provides a comparative setting for the study of early work experiences undertaken by young people. It considers the transition system of Ireland, with reference to international systems. In doing so, particular attention is placed on estimates of participation in part time jobs and the provision of school organised work experiences across OECD countries in an attempt to focus on the differences and commonalities in the provision of early work experiences in OECD countries

Chapter 4 provides an overview of the data and the methodological choices that have been made in the thesis. It outlines how the sampling of the data used guided the analyses of the data in terms of the methodology being used. Furthermore, it provides an overview of the statistical methodologies used, and provides a description of the variables.

Chapter 5 provides an overview of the Irish second level education system, placing particular emphasis on curriculum differentiation at upper senior cycle. In doing so, it examines the characteristics of young people who participate in different programmes currently on offer at upper second level as a context for examining the influence of experience of work before leaving school. In doing so, it considers whether theories of class differentiation in relation to curriculum differentiation can be applied to the Irish case.

Chapter 6 considers the determinants of having an early work experience before leaving school. In doing so, it considers an array of individual characteristics and school level characteristics as potential determinants of acquiring an early work experience before leaving school. While contributing to the broader debate about who works before leaving school, when they work and what type of work is undertaken (part time job or school organised work experience), within this debate I make several important refinements. Firstly, this chapter broadens the outcome of interest from part time job holding in second level to the conceptualisation of work histories of young people before leaving school. Most studies consider part time job holding to be the only source of work experience that young people acquire before leaving school. There are compelling reasons as to why the examination of work histories undertaken while at school may have consequences on labour market outcomes. The most obvious of these is the influence on educational attainment and the pathway being pursued in second level education. Secondly, in addition to considering the characteristics of school leavers who have ever held a term time job during second level education, the timing of these work experiences are also considered according to a range of characteristics. Thirdly, by using a measure of socio-economic disadvantage in the area that the young person lives, I provide a more detailed regional dimension to the study of early work experiences than what has been used before. This chapter aims to evaluate the relative merits of structural and individual explanations for participation in early work experience before leaving school while appraising the persistence of socio-economic background factors in shaping participation in early work experience before leaving school.

Chapter 7 considers the influence of early work experiences on educational outcomes, both during second level schooling and upon completion of second level schooling. In doing so, this chapter considers three aspects of early work experiences that have been neglected in prior research. Firstly, I broaden an examination of early work experiences to include participation in school organised work experiences alongside participation in part time jobs during term time. This is an important extension now that work experience is provided as part of the curriculum in order to counteract educational disadvantage. It also has implications for theoretical

arguments relating to the reproduce of inequality through the education system. Secondly, in addition to considering the characteristics of school leavers who have ever held a term time job during second level education, the timing of these work experiences are also considered according to a range of characteristics. Thirdly, by using school level characteristics and a measure of socio-economic disadvantage in the area that the young person lives, I provide a more detailed contextual dimension to the study of early work experiences than what has been used before.

Chapter 8 considers the influence of early work experiences on subsequent labour market outcomes, considering entry into and survival in employment (versus unemployment) as well as the influence of early work experiences on job search strategies and conditions of employment.

Finally, Chapter 9 marks the final chapter of the dissertation in which the theories and main findings are discussed. It provides a summary of the empirical results and offers some considerations about the policy implications of the results presented in the dissertation.

Chapter 1: The Role of Early Work Experiences before leaving second level education: A theoretical framework

1.1 Introduction

This dissertation seeks to examine the characteristics of a representative sample of school leavers according to their participation (or not) in early work experiences before leaving school – that is, in part time jobs undertaken during term time (PTJs) and school organised work experiences as part of a programme of studies (SCHWK) – and to examine if and how these different types of early work experience are beneficial in the labour market for school leavers. There is currently, and has been for some time, a large body of European and international research dedicated to young people's transitions from school. Within this body of research, academics have been concerned with the different types of curricula that are provided at upper second level, while a much smaller number of studies have been dedicated to part time job holding while still in school. To the best of my knowledge, no studies in the Irish context have been concerned with the influence of different types of early work experiences gained before leaving school on later outcomes in the education and labour market system. This dissertation aims to address this research gap.

This chapter has been divided into three parts. Section 1.2 outlines the research questions that this chapter seeks to address. Section 1.3 provides the theoretical framework of the dissertation and draws on theoretical perspectives from three disciplinary literatures; sociology, economics and psychology. As stated in the introduction, studies of early work experience, particularly in relation to part time jobs, have generally failed to place early work experiences within a wider theoretical framework than developmental/zero sum explanations, focusing more on the policy implications of these early work experiences. Furthermore, much of the consideration of school organised work experiences, undertaken as part of the curriculum, are also policy led rather than theoretically led (for a discussion of this in the US context see Stern and Wagner 1999). This dissertation aims to address this theoretical gap by using theories drawn from the sociological, psychological and economics literatures to guide the empirical analyses of the influence of early work experiences acquired before leaving school on subsequent education and labour

market outcomes. Finally, section 1.4 provides an overview of how these theories relate to the research questions that are addressed in this dissertation.

1.2 Research Questions

The dissertation aims to address the following broad research questions under the following headings;

- *Early work experiences in comparative aspect*

How does participation in early work experiences – part time jobs and school organised work experiences – undertaken by students in Ireland before leaving second level education compare to other institutional contexts? By exploring early work experiences in comparative aspect, what can we generalise about the influence of the institutional structure on the uptake of early work experiences?

- *Curriculum Differentiation at Upper Senior Cycle*

How does participation in different types of programmes at upper second level vary according to individual characteristics and school level characteristics of school leavers? Does a certain 'type' of student opt for a programme that offers school organised work experience?

- ***Who*** *participates in early work experiences,* ***When*** *x1does early work experience occur and* ***What type*** *of work experience is undertaken?*

These questions are asked to consider who it is that participates in early work experiences before leaving school. The questions focus on determining whether certain characteristics are associated with having an early work experience, furthermore these questions consider whether participation in early work experiences varies between schools. When does early work experience occur? Do certain types of students have work experience at different stages of second level education? What type of work experience is undertaken? How do the characteristics of those with part time job experience differ from those with experience from a school organised work experience?

- *Does early work experience influence educational outcomes?*

What is the relationship between early work experience and educational outcomes? Does part time job holding have a significant influence on retention and progression through second level education? Does participation in school organised work experience have a significant influence on retention at upper senior cycle? That is, among those pursuing a particular senior cycle programme, does participation in school organised work experience as part of that programme have an influence on completion of senior cycle? Given that allocation to upper senior cycle is subject to tracking devices based on the results of academic tests (Junior Certificate) and teachers' evaluation of the pupil, does part time job holding in junior cycle represent a significant influence on the curricular track pursued at senior cycle? Furthermore, is there a relationship between early work experiences and performance in State examinations and participation in further education? If so, is this the case for all types of work experience?

- *What is the influence of early work experience on early labour market outcomes?*

Does the acquisition of any or different types of early work experience before leaving school play a favourable role among entrants to the labour market? To what extent is time spent in the labour market (that is, in employment or unemployment) upon leaving school influenced by early work experiences undertaken before leaving school, even when controlling for educational level, socio-economic background and a measure of the socio-economic disadvantage in the area that school leavers live? What is the influence of early work experiences on the economic situation of school leavers at the time of the survey? Among those in employment at the time of the survey, is there a relationship between early work experience before leaving school and job search strategies? Among those in employment at the time of the survey, what is the influence of early work experience on the conditions of their employment?

To provide answers to these questions, data are analysed using the School Leaver Survey 2003 (SLS03). Information regarding the SLS03 will be discussed in greater

detail in Chapter 4. In the following sections I provide a review of the underlying theoretical orientations that guide research in this area. The research evidence on the 'early work experience' literature is reviewed in more depth in each of the empirical chapters.

1.3 Theoretical Orientations

The general aim of this dissertation is to examine the influence of early work experiences on the education and labour market outcomes of school leavers. In doing so, the literature review and theoretical orientations draw from three disciplinary literatures (sociology, economics and psychology). The main theoretical models concerning the area of early work experiences acquired before leaving school can be broadly divided under two headings; 'developmental' and 'allocative' explanations, but are also cross cut by theories relating to curriculum differentiation. Rather than generating detailed hypotheses, these two approaches will be used to orientate the analyses carried out in the dissertation.

The developmental set of explanations relate early work experiences to the acquisition of human capital and human capital formation, particularly in terms of occupational formation, thinking about the future, and the acquisition of knowledge and skills that will be recognised in the labour market. Allocative explanations on the other hand are concerned with explaining the role of education and early work experience in allocative processes in labour market entry, and draw on social capital theory, network theory, and signalling and screening approaches. These explanations are centred on theories of human and social capital and so each of these theories will be developed in more detail within the following sections.

Developmental Perspectives

Rationale for early work experiences undertaken during second level education

The rationales for advocating participation in part time jobs or school organised work experiences among young people in second level education are broadly similar in the sense that they can be framed in socialisation theories, theories of occupational formation and vocational development and broadly follow theories of human capital formation (for a review of the use of these theories in the American

literature, see the works of Erikson 1968; Mortimer and Lorence 1979; Steinberg et al., 1981; Grubb 1989; Mortimer et al., 1996; Mortimer 2003 to name but a few). Erikson (1968) in his work on *Identity: Youth and crisis* proposed that the primary developmental task during the adolescent phase of the life course was to establish a coherent sense of identity through role experimentation; the occupational arena being one major time of such exploration. Grubb (1989) in the American context relates the 'social construction of adolescence' to fundamental changes in economic and social structure.

There are several theoretical reasons as to why early work experience should influence later occupational aspirations and even employment outcomes. Developmental explanations have commonly been used by psychologists, sociologists and economists in studies of work undertaken during adolescence, particularly in relation to part time job holding and academic achievement, and have generally been played out in a context of contrasting developmental and zero sum arguments. According to socialization theory, early work experience gives young people a taste for working roles and shapes aspirations for future social and economic achievement (for work carried out in the USA see Coleman 1984; Mortimer and Finch 1992; Stack 2001 in the Irish context). Human capital theory places emphasis on the benefits of work experience for the creation of labour market skills that increase future productivity. Theories of occupational formation and vocational development argue that there are developmental consequences of work undertaken during adolescence, these being the opportunity to acquire values, habits and knowledge, and facilitate the transition to adulthood (see Lindsay and Knox 1994).

Irish educational policies advocating the provision of work experience in the curriculum (SCHWK) have generally argued that work can provide a valuable educational experience even if the work that takes place is not related to eventual employment, or is not skill specific, and that it can facilitate the transition to adulthood and provide links to the world of work, encouraging links with employers. Such a view is based on the argument that school leavers should be better prepared for the world of work upon leaving school.

Human Capital

Human capital theory offers a good starting point in framing participation in and outcomes of different types of early work experience acquired before leaving school, as human capital formation is closely linked to education and experience in the labour market. The term 'human capital' can be dated back to Pigou (1928) who pointed that investments can be in *human* capital, meaning investment in the personal productive capacity of individuals as well as investment in material capital[1], and later the notion human capital was broadly popularised by Mincer (1958), Schultz (1961) and Becker (1964). A general understanding of human capital today refers to the qualifications, skills and knowledge that are available to and acquired by individuals to maximise their own employability.

Human capital theory follows a rational choice perspective in that human capital investments '*tend to respond rationally to benefits and costs*'. For Becker, education and training are the most important investments in human capital, but human capital can also be acquired from learning and training occurring outside of schools and particularly on jobs. Therefore, human capital is determined by education and occupational skills, gained through formal and informal learning and work experience. Furthermore, human capital analysis assumes that '*schooling raises earnings and productivity mainly by providing knowledge, skills, and a way of analysing problems*' (Becker, 1993:1).

Human capital and school organised work experience

There has been some theoretical ambiguity with regard to conventional and modern conceptualisations of human capital in relation to work experience acquired before leaving school, particularly in terms of part time job holding. For example most of the early, more rigorous theoretical economic analyses of the optimal level of schooling assume that people complete schooling before entering the labour market[2] (Ben-Porath 1967; Johnson 1970; Haley 1973 in Light 1999). Subsequent theoretical work emphasises the distinction between periods of complete specialisation – such as schooling only - and periods when people simultaneously

[1] However the concept of investment in the personal productivity of individuals was considered morally inappropriate at the time.

[2] A general criticism in the literature of the Mincer model is in its use of equations in which the earnings-schooling relationship is assumed to be linear, despite the existing evidence that it is not (Light 1999).

attend school and work. More recently, econometric studies of part time job holding at second level education have rejected the issue of complete specialisation, which was central to earlier models (for example Molitor 2004, Light 1999,2001). In the Irish context the approach of modelling schooling and work experience as sequential events remains the commonly accepted practice (for example see Denny and Harmon 2000; Breen 1992), meaning that job experience is still frequently defined as actual experience since leaving full time schooling, with few exceptions (see for example McCoy and Smyth 2004).

Credentialism offers an alternative view, which denies that schooling does much to improve productivity, and stresses that degrees and education convey information about the underlying abilities, persistence and other valuable traits of people (Collins 1979). In his second edition of *Human Capital* Becker (1993) puts forward his views against credentialism by arguing that companies do not want information on success at schoolwork; but on abilities and performance in the context of working life. He argues his case using work undertaken during the teenage years as an example;

> *'A cheaper and more efficient way to provide information to employers is for teenagers to enter directly into the labour market, as they did prior to the industrial revolution. Far more would be learned about their work-related abilities and other characteristics after six years of work experience than after six additional years of schooling'* (Becker 1993:20)

Theoretically, can school organised work experience be separated from the educational programme in which it is placed according to human capital? Human capital assumes that education and skills, whether vocational or academic in nature, improve one's economic prospects in the labour market (Becker 1975, 1993) and that schooling 'adds value' to potential workers. Human capital theory places emphasis on the benefits of work experience and job-specific training for creating labour market skills that increase future productivity. In terms of work experiences acquired as part of the curriculum (SCHWK), because the experience is part of the educational programme of studies, human capital views it as something that contributes to future economic prospects in the labour market. According to this view, education follows a functionalist perspective whereby there is a match between the content of what is manifestly taught or latently acquired through formal or informal socialisation,

within schools and what is subsequently required or used in the labour market. That is, education socialises young people for their future roles in society and increases the usable knowledge and skills and improves attitudes and aptitudes of students and potential workers. Therefore, one could argue that non-participation in compulsory school organised work experience represents a lost opportunity to acquire a valuable experience, or to improve attitudes and aptitudes, which could then be valuable in the labour market. By emphasising the role of investments in the accumulation of human capital, this model stresses the importance to employers of what students have learned in school (Mayer and Peterson 1999). That is, according to this view employers' value what students learn in school.

Based on this overview of human capital theory, it is clear that early work experience acquired before leaving school represents an important component that should be included in human capital, particularly when school leavers are considered. An important component of human capital is their *work histories* as they enter the labour market upon leaving school. School leavers who are disengaged from traditional academic learning may be more motivated to build up a work history than others as they may intend on entering the labour market directly upon leaving school. Thus, accumulating a work history may represent a strategy for these young people. This idea will be considered later in the dissertation.

According to human capital theory, young people have work-entry problems because of deficiencies in their qualifications, skills, knowledge and abilities. Poor educational achievement in school is blamed on poor ability or poor instruction. In the second edition, Becker also recognises the influence of families on the knowledge, skills, values and habits on young people (Becker 1993).

Background to Development and Zero Sum Arguments relating to part time job holding

The international literature offers two broad perspectives to frame the relationship between educational attainment and part time job holding - the zero sum model and the development model.

The origins of the zero sum argument stems from the work of Coleman (1961) on *The Adolescent Society*[3]. Coleman analysed how the social structure of the adolescent subculture in ten schools in America (Illinois) assigned status and how this status system influenced adolescents' activities and development. Concluding that the status system of the adolescent culture did not value and reward academic achievement and the pursuit of intellectual goals, he argued that, as a result, the *most academically talented* students diverted energy into nonacademic pursuits and developed their intellectual capacities less completely than they might otherwise have done. Coleman believed that this trend had negative consequences for society, and proposed that measures be taken to align the goals of the adolescent subculture with those of adults, which would later have an influence on the curriculum being provided in schools.

Coleman (1961) offered a zero-sum analysis of the world of adolescence in which the costs and benefits accrued in one context of adolescent life, such as participation in sports activities, are seen to have consequences for other aspects of social and intellectual development. According to the zero sum model, more time spent on activities outside narrowly defined academic pursuits leads to less time being spent on academic pursuits. In order words, a zero sum model of students' time allocation argues that there are only so many hours in the day and each hour spent in other social engagements/extracurricular activities) is an hour not spent studying or doing homework. While Coleman did not include part time job holding in his zero sum analysis, this framework laid the theoretical foundations for others involved in empirically testing the effects of part time employment on academic achievement (see for example D'Amico, 1984; Kablaoui & Paulter, 1991; Marsh, 1991).

The contrasting developmental model emerged from an educational policy perspective in the United States. The influential report of the Coleman commission of the *President's Science Advisory Committee* (1974) was critical of the role of the school and blamed schooling for actually inhibiting the transition to adulthood

[3] In his book *The Adolescent Society* Coleman (1961) argued that an adolescent subculture had come into existence. The social forces that promoted this subculture included increased industrialization and suburbanization, segregation of adolescents from adults, less parental supervision than in more agrarian times, and less transmission of values directly from parents to children through shared work and responsibility.

because it isolated young people from their peers (adults) and from productive work. The report called for placing young people into work situations earlier, as a tool for social development. According to this view, young people should be more actively involved in the workplace because work would provide a valuable educational experience, even if the work took place in an occupation not related to the eventual employment. This increased involvement, it was argued, would lead to the transmission of knowledge, practical skills, adult perspectives and a greater sense of responsibility. From this perspective, part time employment could facilitate non-academic goals but may also indirectly facilitate more narrowly defined academic goals and lead to better performance in school through increased self-concept and sense of responsibility.

In one of the first studies of part time job holding in the US, Steinberg et al., (1981) concluded that part time employment among high school students had little association with occupational values, supporting a no-influence hypothesis. Their no-influence hypothesis explained the 'null' effect of part time job holding because teenagers viewed their jobs as temporary and did not expect to engage in similar work after completing high school.

Later, in 1986 Ellen Greenberger and Laurence Steinberg (1986) in their book *When Teenagers Work* reported negative consequences of work, particularly in relation to academic performance; and argued that working long hours in part time jobs during term time appeared to depress grades in school (Entwisle et al., 2000). Greenberger and Steinberg also reported negative findings in relation to work tasks undertaken during term time job holding, reporting that young people had low levels of meeting obligations at work, low feelings of interdependence with other workers and little contact with adults (Entwisle et al., 2000). Thus, they reported a cynical view of work among working students as they found it intrinsically unrewarding, pointless and meaningless. Rather than any developmental function of part time job holding on occupational aspirations, the study found that a negative attitude towards work was more prevalent among working students and those who worked intensively than among their nonworking classmates. Their work concluded that adolescents' work in part time jobs undercuts psychological development, and also pointed to an

association between students who work long hours or at unskilled jobs and deviant behaviour. While not of direct importance to this study, there is a whole body of research which points to the negative effects of part time job holding on young peoples psychological well being and/or mental health (Mortimer et al 1994), the strain on family relationships (Greenberger and Steinberg 1986) and the increased substance abuse attributed to youth work (Steinberg, Fegley and Dornbusch 1993). These studies have spurred a lively debate and further study among academics on the possible negative consequences on school engagement and performance.

To the best of my knowledge, these key American studies represent the beginning of a range of international studies have argued against part time job holding. Contrary to developmental arguments, findings indicate that part time job holding constitutes a subversion of traditional academic goals, particularly among the most academically able students (McNeal 1997; Marsh 1991; Mortimer and Finch 1986; in the USA, Morgan 2000; McVicar and McKee 2001; McCoy and Smyth 2004; Smyth, Byrne and Hannan 2004 in Ireland, Payne 2001, 2003; Dustman et al. 1996a, 1996b, 1997; Lindsay et al. 1994 to name but a few in the UK). The findings of these studies will be discussed in greater detail in Chapter 7.

What is particularly interesting is that empirical studies supporting or opposing developmental hypotheses relating to school organised work experience are much more limited, particularly in the Irish context, but when they do exist they tend to focus on policy. Given the dearth of research in the Irish topic, I will provide an overview of studies from the United Kingdom, relating to school organised work experience provided as part of compulsory education. In the UK, Saunders et al., (1997) argue that that linking pre-16 careers and work-related input to longer term outcomes, such as getting jobs, work satisfaction and labour market mobility has rarely been attempted, as it is highly problematic due to both changes in individual career choices and changing labour market conditions. However, a number of studies in the UK context have reported positive effects of participation in a work related curriculum in relation to the acquisition of skills, particularly in the knowledge and understanding of the world of work, personal development and self-awareness,

attainment and motivation (Hillage et al., 1996, 2001). In addition to the difficulties in measuring the impact of a work related curriculum, it has been recommended that targeted work related learning which is differentiated according to the needs of individuals can have an impact on both academic and vocational attainment, particularly for lower ability and under-achievers.

In their study of programmes in the Irish education system that offer work experience, McKenna and O'Maolmhuire (2000) have expressed concern about employer perceptions of work related learning. In their case study of programmes at senior cycle that offer school organised work experience, they found that employers perceive that work experience students' occupational knowledge and understanding of the particular sector they are working in is poor. Furthermore, they found that employers in most sectors report that the LCVP work experience that they can provide is of little benefit to students, the only exception being those in high technology industries. With regard to work experience in LCA, they report that employers perceived LCA students to be less employable than those in the LCVP and this reflects parity of esteem issues associated with vocational education in general. In comparative aspect, these findings are not wholly unfounded given that unlike countries like Germany, Ireland has a low level of employer engagement.

Allocative Perspectives

The transition to work represents a central stage in the lives of individuals (Müller and Gangl 2003) and it has been well documented that education is a major characteristic in the allocation process of young people to the labour market (Sorokin 1927; Blau and Duncan 1967) and also to further education and training. In explaining the structure of labour force careers, individual education, work experience and social networks are important collective resources with positive effects on transition outcomes (Gangl 2002). However, it should also be kept in mind that individual decisions and the value of acquired resources will also be partly framed by and depend on the wider structural conditions in the labour market. The following section considers the role of education and early work experiences in allocative processes of labour market entry. In doing so, several different types of

middle range theories are used, which give an overview of how different theories relate early work experiences as mechanisms for labour market entry.

Social Capital

The concept of social capital can generally be attributed to three dominant theorists – Pierre Bourdieu, James Coleman and Robert Putnam, but it has been argued by Portes (1998, 2000) that the origins of social capital can be found in the readings of Durkheim. Each of these theorists have taken the concept of social capital albeit at a different levels and developed their understanding in relation to their research, outlining the 'heuristic' potential of social capital to social issues (Baron et al., 2000). While each have a different understanding of social capital, they each postulate between successful outcomes (such as education or employment outcomes and family relationships) and the presence of social capital (Gamarnikow and Green 1999). Because of its popularity as a framework in academic studies, the concept of social capital has come under immense criticism, as it has been described as being 'too broad' due to its general application across a number of disciplines, involving different units of analysis, to the extent that some would argue that it has no stable meaning. Others cite concerns about growing controversy about its alleged effects (see Portes 2000) while others argue that it has more long-term strategic meaning for sociology and the social sciences (Adam and Roncevic 2003). The following sections provide an overview of work on social capital by Pierre Bourdieu, James Coleman and Robert Putnam.

The social capital of Robert Putnam

Some theorists take the 'macro' viewpoint and use the term social capital to denote the resources that are shared by all the members of a very large group or society, these resources being the forms of regulation that govern life in society (see for example Schiff 1992; Fukuyama 1995 and Paxton 1999). According to this definition, social capital involves values and norms that make life in society possible. This definition has perhaps come under the most criticism, as the concept is difficult to differentiate from that of 'culture' (Degenne and Forse 2003). Perhaps the most influential work undertaken on social capital is that of Robert Putnam's *Bowling Alone* (2000). Putnam defines social capital as *'features of social organisation such*

as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit' and '*features of social life-networks, norms and trust that enable participants to act together more effectively to pursue shared objectives*' (Putnam 1993).

In terms of educational outcomes, Putnam (2000) argued that the density of social connectedness (measured in terms of the social capital index and conceptualised in terms of formal and informal social capital) in a region (in this case, a state) is related to how well the students in that state perform. That is, he reported that the 'social capital index' was highly correlated with student scores on standardized tests and on retention at school. Furthermore, it was argued that the level of 'informal social capital' is a stronger predictor of educational attainment than the level of 'formal institutionalised social capital', meaning that the 'level of social trust in a state and the frequency with which people connect informally with one another were even more closely correlated with educational performance than the amount of time state residents devoted to club meetings, church attendance, and community projects' (Putnam, 2000:300). Putnam offered a number of possible explanations as to why social connectedness would have an influence on educational achievement. He deliberates that where civic engagement in a community affairs is high, teachers report higher levels of parental support and lower levels of student misbehaviour, arguing that parents in states with high levels of social capital are more engaged in their child's education. Secondly, he uses a zero sum explanation as to why social connectedness would have an influence on educational achievement. On this note, Putnam argued that where community traditions of social involvement remain high, children and young people are attracted towards more productive uses of leisure (other than watching TV for example) than where social connectedness and civic engagement among adults is limited.

Earlier definitions of macro level social capital that are also of interest to this dissertation, refer to social capital as being what is transmitted by socialisation, in particular at school (Bougle 1922 and Loury 1977, 1987 in Degenne and Forse 2003). Loury is said to have used the term social capital to describe the social resources that individuals are able to access, that is, social capital is a set of resources

that inhere in family relations and in community school organisation, and that are useful to the social development of a young person or a child.

The Social Capital of Bourdieu

For Bourdieu, social capital began as one of many other forms of capital (cultural, social and economic) of which he deemed economic capital to hold the greatest importance followed by cultural (embodied, objectified, institutionalised) and then social. Social capital developed from Bourdieus' notion of 'habitus' (or the nexus between culture and the individual) and from his works it is clear that he has continued to develop the notion. He introduced the notion of social capital as 'a capital of social connections, honourability and respectability' (Bourdieu, 1984: 122). More recently Bourdieu has developed a 'unitary' capital that embodies economic, cultural and social capitals to the extent that social capital now becomes defined as a personal or an institutional resource. He most recently defines it as

> *'The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition – or in other words, to membership in a group -which provides each of its members with the backing of the collectively owned capital, a 'credential' which entitles them to credit, in the various senses of the word. These relationships may exist only in the practical state, in material and/or symbolic exchanges which help to maintain them. They may also be socially instituted and guaranteed by the application of a common name (the name of a family, a class, or a tribe or of a school, a party, etc.) and by a whole set of instituting acts designed simultaneously to form and inform those who undergo them, in this case, they are more or less really enacted and so maintained and reinforced, in exchanges. (Bourdieu 2007: 88).*

Bourdieus earlier notion of social capital has been widely used in the sociology of education literature, to explain how elite groups use their contacts to reproduce their privilege by forming tight bonds with others similar to themselves, using different forms of capital (economic, cultural, symbolic) aimed at explaining the mechanisms of preservation of the social stratification system and legitimization of dominant class reproduction strategy (Bourdieu and Passeron 1990).

In his most recent essay on the forms of capital as well as defining social capital, Bourdieu also speaks of how the establishment and maintenance of material and symbolic exchanges which produce social capital presuppose re-acknowledgment of proximity, they are not reducible to objective relations of proximity in geographical space or even in economic and social space. Furthermore, the volume of social capital possessed by a given agent depends on the size of the network of connections that can be activated, and on the volume of capital (economic, cultural, or symbolic) possessed in his own right by each of those to whom he is connected. Because of this, social capital can never be completely independent of other forms of capital.

Thus, the development of social capital on behalf of Bourdieu indicates that it is not reducible to a particular capital but it is not independent of other forms of capital either. According to Bourdieu, the gains or profits deriving from membership in a group are the basis as to why membership in a group occurs. He outlines that membership in such groups may not be necessarily pursued because of the gains or profits deriving from membership, even when clubs or groups deliberately arranged in order to concentrate social capital and derive full advantage from the multiplier effect of the grouping. In this case, membership in such a group/club or network is the product of an endless effort at institution.

> 'In other words, the network of relationships is the product of investment strategies, individual or collective, consciously or unconsciously aimed at establishing or reproducing social relationships that are directly usable in the short or long terms, i.e., at transforming contingent relations, such as those of neighbourhood, the workplace, or even kinship, into relations that are at once necessary and elective, implying durable obligations subjectively felt (feelings of gratitude, respect, friendship, etc.) or institutionally guaranteed (rights)'. (Bourdieu 2007:89).

From his work, I find it somewhat difficult to deliberate whether Bourdieu is concerned with mechanisms of individual agency or social structure, but much of the literature argues that Bourdieu is concerned primarily with social structures rather than with individual agency, in that social capital is a resource used by people to support their strategies to maintain and change their position within the social structure (Degenne and Forse 2003).

The Social Capital of Coleman

For Coleman (1990) social capital is associated with a group and the structure of ties between individuals in a group. Social capital is therefore 'embodied' in the ties between persons and has its source in their collective memory, whether this is embodied in an organisation or exists only because the individuals in question share a common history. This form of social capital entails shared knowledge and it is clearly apparent that Coleman considers that social capital provides a kind of bridge between the level of individual ties and that of norms. Stemming from a paradigm of rational choice/action, Coleman posits that each actor (whether an individual or an organisation) has control over certain resources and interests in certain resources and events. Social capital can then be viewed as a particular kind of resource available to an actor or found within an organisation. Coleman argued that the macro and micro levels of society could be linked and so, used social capital as a way of understanding wider social inequalities in terms of educational achievement. Studying educational outcomes, Coleman asserted that *'[social] capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: they all consist of some aspects of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within the social structure* (Coleman 1988: S98). His influential work on educational achievement found that pupils of Catholic high schools had higher levels of attainment in most subjects compared to other schools, noting the higher expectations of teachers in these schools, suggesting that this was particularly beneficial for pupils coming from the least advantaged backgrounds. Coleman defined social capital according to its function and does not reject the idea that an individual's social capital might be measured. Unlike Bourdieu, Coleman saw the creation of social capital as an unintentional process, positing that 'there is often little or no direct investment in social capital'. Unlike other forms of capital, he argued that social capital inheres in the structure of relations between actors and among actors.

The remaining theories outline mechanisms by which information is conveyed in the labour market, and draw largely on sociological and economic approaches.

Network Theory/Institutional Linkages

Traditionally network theory has been associated with the concept that individuals are linked together by one or more social relationships. Building on Granovetters' (1985) assertion that markets often depend on the 'nature of personal relations and the network of relations between and within firms', a number of academics working in the sociology of education have attempted to introduce a new perspective on network theory, resulting in 'institutional networks', 'institutional linkages' (Rosenbaum and Takehiko 1989) or 'institutional social capital' (Heinz 1999; Briton 2000).

Human capital theory argues that young people have work-entry problems because of deficiencies in their human capital, and is critical of linkages between schools and employers because preferential relations between employers and certain schools could limit competition, reduce employee quality and raise labour costs. According to this view, employers would give better jobs and higher pay to youths with better grades because such youth will be more productive.

Rosenbaum and Takehiko (1989) argue that two aspects of work-entry problems suggest that human capital is not the whole problem. Firstly they argue that the development of human capital in schools is partly determined by effort, which is strongly affected by external constraints. Secondly, it is argued that while employers often cite deficient human capital as a barrier to employment, they use inefficient information on applicants, making use of selection criteria based on qualifications rather than information gained directly from schools about a young person, as is the case in Japan. On this point, the argument is that a greater flow of (efficient and accurate) information between schools and employers could reduce problems for youth entering the labour market. This assertion builds on previous research that institutional contacts, such as in the case of Germany and Japan, help youth gain access to jobs with better training and future prospects because of the institutional contacts between schools and employers that are used to communicate the value of youth to employers (Rosenbaum 1990). Unlike human capital and functionalist perspectives, network theory suggests that linkages between schools and employers can improve market processes, arguing that institutional linkages could increase efficiency and strengthen the relationship between achievement and jobs by

increasing information and jobs and improve market processes. They argue that institutional linkages could increase efficiency and strengthen the relationship between achievement and jobs by increasing information and trust. According to this view, work entry problems arise because youth are lacking social networks or because the school is lacking institutional networks with employers.

The next section considers other ways in which information is transmitted in the labour market: screening and signalling theories.

Screening /Signalling Theories

According to screening theory, education is a screening device for abilities that cannot be directly observed. According to Stiglitz (1975) screening is a mechanism by which markets react to imperfect information about the qualities of individuals. Therefore, as markets (employers) screen, job seekers signal their productive capacities. Later work on screening theory has identified 'weak' and 'strong' versions of screening (see Psacharopulos 1979 in Bills 2003). According to the strong version, schooling is exclusively a signal rather than adding any productive capacity as theorised by human capital theory. The weak version of the screening hypothesis holds that schooling provides a signal but also increases productivity.

Signalling theory argues that rather than fully assessing human capital, employers hire employees based on available 'signals' offering limited information about job applicants, using the information that they can obtain about individuals – such as age, sex, school prestige, educational qualifications – and apply what they have learned in the past to infer the 'conditional probability of competence' of an individual (Blaug 1976). Signalling theory has been criticised for its lack of scope – it does not discuss or predict which signals employers use, what signals will have the greatest impact on hiring decisions or whether the same signals are used to screen applicants.

1.4 Overview of how the theories relate to the main research questions

The theoretical perspectives outlined in this chapter will be used to guide the following dominant empirical research questions addressed in this dissertation.

- Who obtains work experience before leaving school?

- What is the influence of early work experience on educational outcomes?
- What is the influence of early work experience on labour market outcomes?

The general aim of the broad theoretical framework is to guide the empirical analyses. These theoretical perspectives will be used to inform the analyses rather than be directly tested by the analyses. The research design does not set out to test the relative validity of either developmental or allocative explanations. The assumption is that both are present and constitute resources that young people have accumulated before leaving school.

Participation in early work experiences

The dominant research question being addressed in Chapter 6 is how are early work experiences distributed according to gender, socio-economic background, school type attended and measure of local socio-economic disadvantage? In considering the distribution of early work experiences across these independent variables, the main theoretical considerations regarding participation in early work experiences are based on the assumption that either individuals or their families or schools or the local socio-economic conditions in which they live influence participation in early work experiences. The literature pointing to differences in uptake of early work experience has considered participation in part time jobs in terms of demand and supply or push and pull factors of local labour market conditions (see for example Kalachek 1969, Keithly and Deseran 1995), the transmission of social capital in human capital acquisition and contagion theories and theories of collective action explanations of the regions within work activities take place.

Individual level explanations tend to centre on variables such as gender and age, but also to wider theories relating to individual agency and subjective career strategy arguments such as those used by Willis (1977) and McDowell (2002). The second explanation lies in human capital and social capital approaches centring on parental involvement in the transmission of their own social capital into their sons/daughters human capital. Finally, contagion theories and theories of collective action explanations of the regions within work activities take place. These will be discussed in more detail in Chapter 6.

Influence of early work experiences on education outcomes

The influence of early work experience, particularly part time job holding has generally been explained through developmental versus zero sum arguments, in a response to policy formation. The dearth of theoretical developments in the Irish context is likely because this field of study is still in its infancy.

In terms of part time job holding, as outlined above, the zero sum model seems to have gained most prominence and argues against part time job holding by making the claim that it constitutes a subversion of traditional academic goals, drawing heavily on the work of Coleman (1974). On the other hand, developmental explanations argue that adolescents should be more actively involved in the workplace to facilitate their transition to adulthood. From this perspective, part time employment could facilitate non-academic goals but may also indirectly facilitate more narrowly defined academic goals. The zero sum explanation has been criticised on a number of counts. Firstly, Warren (2002) argues that time spent working in term time jobs does not necessarily detract from time spent studying, and recognises that young people also engage in other activities such as watching television, delinquency or other less academically beneficial activities. Secondly, he also argues that the zero sum model ignores the conscious and deliberate decision-making process, which young people and their parents use when deciding whether, and how intensively young people work. Thirdly, I argue that while zero sum explanations have most commonly been used to theoretically evaluate the relationship between part time job holding and educational outcomes, it does not fully explain the mechanisms by which this relationship is played out, nor is it useful in considering other work experiences such as school organised work experiences. Furthermore, particular attention will be paid to the characteristics of those who had early work experiences, when examining the relationship between early work experiences and educational outcomes.

Influence of early work experiences on early labour market outcomes

While still in their infancy, studies of the relationship between part time jobs and early labour market outcomes in the Republic of Ireland have attracted considerably more attention than the relationship between school-organised work experiences and

labour market outcomes. In the Irish context, little has been explained about the influence of part time job holding on the transition to work other than it may have a smoothing effect.

According to developmental explanations of early work experience (as outlined in Section 1.3) both part time job holding and school organised work experience provide a socialisation function and develop a taste for the world of work. Furthermore human capital theory places emphasis on the benefits of work experience for the creation of labour market skills but also provides employers with information on abilities and performance in the context of working life. On could hypothesise according to this view, that young people who do not take part in compulsory modules of school organised work experiences are likely to have missed out on an opportunity to acquire an experience that is valued in the labour market. This is based on assumption of human capital theory that any education whether it is academic or vocational in nature develops a capacity for learning and raises productivity. By using the concept of work histories, and devising a typology of early work experiences undertaken by young people before leaving school, we can examine whether accumulating a work history before leaving school represents a strategy for school leavers, both in terms of the programmes they pursue at second level and their outcomes in the education and labour market.

The influence of school organised work experiences on labour market outcomes can be examined in terms of how information is exchanged in the labour market. Network theories and theories of institutional linkages argue that education policy, through school organised work experiences, is focused on giving young people connections with the world of work.

Chapter 2: The Changing social position of Irish youth in relation to education and work

2.1 Introduction

In order to provide an institutional context for the study of early work experiences[4] the present chapter offers an historical account of the relationship between youth, work and schooling in the Republic of Ireland starting from the mid eighteenth century to the present time. In doing so, it provides a context for the study by considering how the emergence of education and employment activities among young people developed over time. Furthermore, in attempting to consider how participation in early work experiences – part time jobs and school organised work experiences – among young people in Ireland before leaving second level education compare to other institutional contexts, it is deemed important to go back in time. The beginning of this chapter outlines the changes that have occurred in the work status of young people, recalling a time when work did not compete with education in the lives of children and young people to a time when work is provided as part of the curriculum. In examining the relationship between youth, work and schooling and discovering the development of young peoples' time spent on work and education activities, this chapter seeks to contribute to our understanding of the changing economic position of young people.

The following section offers an overview of the economic position of children and young people from the 1800s to the present day as a context to the study of part time jobs that young people engage in. Because studies of the economic position of children and young people in nineteenth and twentieth centuries are generally lacking in the literature, I use child labour legislation and Census reports to add to our knowledge, thus contributing to knowledge on a much under-researched area. Section 2.3 offers an historical account of the development of school based vocational education, leading to the current provision of programmes offering school

[4] The term 'early work experience(s)' is a generic term that refers to any type of work experience acquired before leaving school – meaning from either a part time job(s) and/or a school organised work experience. When the term 'part time job' is used, it refers specifically to part time jobs. When the term 'school organised work experience' is used, it refers specifically to school organised work experience.

organised work experiences. Finally Section 2.4 provides an overall discussion of this chapter.

2.2. The economic position of children and young people: An historical tour of 'work' undertaken by children and young people

Our historical understanding of the economic position of children and young people, is largely anecdotal and sociologists hold that there is a dearth of documented research for much of the nineteenth and twentieth centuries outlining the position of children within the family and society in Ireland (Fahey and McLaughlin 1999; Hannan and Katsiaouni 1977). This is surprising given the numerous accounts by academics in other institutional contexts (Cunningham 2000a, 200b; Lavalette et al 1991; Lavalette 1994, 1999; McKechnie et al. 2000; Rahikainen 2001, 2004), thus representing a much under-researched area. While it has been well documented that from the latter part of the nineteenth century up to the 1940s the state intervened massively in social and economic life, particularly in rural Ireland (Fahey 2002; Gibbon and Curtin 1983), sociological interest in the lives of young people have generally only come into play regarding social issues, and when historical accounts of childhood do exist, these tend to focus on children in workhouses and charity homes (see for example Robins 1980). However, the results of my trawl through Irish Census reports and child labour legislation point to an interesting interplay between work and education among children and young people in Ireland[5] from as early as the late eighteen hundreds onwards.

The Decline of Child Labour

In his account of the decline of child labour in western economies, Cunningham (2000a) posits that in the late 1830s and beyond, children played a crucial role in key industries in the more advanced economies, most notably in textiles and coal mining. Legislation in Ireland in the early eighteen hundreds, a time of declining traditional linen and cotton manufacturing industries, saw the beginnings of an increasing social and governmental concern with the employment of children, and is evident through a

[5] Point of clarification: The term 'Ireland' as it appears in the text from hereon into the remainder of the chapter should be taken to refers to the Republic of Ireland unless otherwise stated. This is not a political statement or does not refer to political activities in the text.

Bill in 1819[6] enquiring into the 'promotion of education and morals' of children working in factories and conditions of labour as well as an ongoing enquiry from 1825 into education in Ireland[7]. Importantly, at this time Census returns estimated that many young people were illiterate and largely without education; but evidence as to the activities they undertook is lacking (see Table 2.1).

Table 2.1: Educational Statistics 1841-1911

Year	% Aged 5-16 attending school	*% Who could read and write* Males	*% Who could read and write* Females	*% Aged 9 and over Illiterate*
1841	20.0	37.0	18.0	
1851	25.0	41.0	25.0	46.8
1861	30.0	35.0	27.0	38.7
1871	42.0			33.4
1881				25.2
1891				18.4
1901				13.7
1911				11.9

Source: Report of the Commissioners appointed to take The Census of Ireland, various years

However, readings of the Irish Census of Population of 1841 under the headings 'Education' and 'Occupation', in the general report of the 1841 Census gave some insight into the economic position of children and young people, stating that some contribute to the family economy but contributions were made to other economies, not only in towns but also rural areas;

> *'But at present, in a large mass of the community, the head of the family is often obliged to call to his aid the labour of its members as contributors to their own support...There are thus not unfrequently different occupations in the same family, and occupations which, in some families almost always differ from that of its head, because the occupation of a father may be of a nature in which his children cannot assist him. For instance, the younger children of the Mason, the Carpenter, or the Blacksmith usually seek in other occupations, employments related to their age or sex; while the Tailor, the Weaver or the Shoemaker may employ the younger members of his family in assisting himself. Nor is this juvenile labour confined to trades in towns. It prevails also, to a considerable extent, in rural occupations'.* (Report of the Commissioners appointed to take The Census of Ireland for the year 1841, 1843: xx)

[6] Bill for the promotion of education and morals of children working in cotton factories in Ireland.
[7] These reports also shed some light on the perceived attitudes of young people at the time. For example, one of these reports lay claim that there was a preference by the boys to the army and a dislike for being apprenticed to trades.

In explaining the difficulties in defining the parameters in recording occupations among the population, the Commissioners make reference to the age when economic activity begins, stating that economic activity among children and young people was a common feature across the whole social structure of society; and that the 'early abandonment of the abstract for the practical was a common occurrence at the time;

> *'The age to which this classification (of occupations) has therefore, been limited, is 20 years. We have preferred 15, and we might perhaps have descended yet lower, as, unhappily, the demand upon the physical strength of our population for the purposes of labour is extensively made and*
>
> *enforced even at a much earlier age. Indeed, the period of life below which factory labour is prohibited by Law is only 11 years; and now that the number of this class has become so extensive that Legislative enactment appears necessary for its regulation, it will be readily admitted, that these individuals have a fair claim to rank among the productive agents of the country. Nor is this early entrance to productive life confined to the mere mechanical occupations. It is a feature of the age, and pervades every class of society, arising doubtless, from the fact, that greater numbers render both subsistence and distinction more difficult of attainment than formerly. This early devotion to the useful – this early abandonment of the abstract for the practical, may justly be regretted, as it narrows the basis of intellectual development. But that such is the tendency of the age there can be no doubt. We venture, therefore to think, that henceforth 15 will be the age at which, in any Census, it will be considered that in the mass of the community occupation begins and education ends'* (Report of the Commissioners appointed to take The Census of Ireland for the year 1841, 1843: xx)

The Commissioners also report a gendered division of labour, outlining that the numbers of females under 15 in employment, particularly in clothing and food industries was 'considerable'. While outlining further difficulties in defining the age boundaries for those in education and in occupations, they shed some light on the economic activities of children and young people, stating that school at this time was a part time matter, suggesting a dual status position for some, but more likely no education at all for the vast majority of others…

> 'The period between 5 and 15, … may appear somewhat too long for the educational age of the great mass of the community. Besides, it is not to be assumed that children are at school the whole of that time, but only that very few are at school at any other time' (Report of the Commissioners appointed to take The Census of Ireland for the year 1841, 1843: xxxxix, xl).

The work of children was said to be seasonal, resulting in lower participation in education among those from the 'humbler classes', but also pointing to regional disparities in school attendance...

> *'Some children may have been absent from the occupations of the season, but from the best information we have been able to obtain, the number so absent is not so great in June, that month being one of average attendance, as many of the younger children who are unable to attend in the winter in rural districts are then present, and in numbers compensate the elder absentees who may be occupied in occasional summer labour...It is, no doubt, true that at the time which the great majority of the humbler classes remain at school is very short, it is not impossible that all may, during some proportion of the long period of 10 years, be receiving the rudiments of education; the proportion, however, is very unequal in different counties; and in some it will be seen that there are as yet slender means of removing their present ignorance'* (Report of the Commissioners appointed to take The Census of Ireland for the year 1841, 1843: xxxxix, xl).

Furthermore, the 1843 Census report gave some insight into the pattern of youth transitions of the time and the transition from education to work...

> *Indeed on this principle the educational age ought to have terminated at 14, as the following year is included in the table of occupations; but the period of change is arbitrary. Occupation encroaches gradually on education, and spreads over the whole of the common period between 14 and 15, nay it felt as early as 13 years of age, as will be seen by the diminishing numbers attending primary schools.* (Report of the Commissioners appointed to take The Census of Ireland for the year 1841, 1843: xxxxix).

Employment legislation in the 1800s is replete with references to the employment of children, the enforcement of education and the foundations of childcare policy. 1833 saw the first report into the Employment of Children in Factories, and a later inquiry was undertaken into the employment of children during school age, placing emphasis on street trading by children in the large centres of population in Ireland[8]. It would seem that recommendations of the report reflected the conflicting views at the time regarding the economic activity of young people. While the report recommended that local authority councils should be empowered to prohibit street trading by persons

[8] The report found that in Dublin there were 433 boys under 16 selling newspapers and 144 girls selling newspapers, fruit or fish. In Belfast there were 1,240 boys and 45 girls and in Cork 114 boys only. Cunningham (2000) argues that by the late nineteenth century children in western economies for the most part no longer participated in key industries but were confined to a distinct and marginalised children labour market – and they remain there.

under 16, they also recommended that a street trading licence should be held. Around this time, attempts continued to enforce formal education. To deal with non-attendance at school, the report advocated the retention of a licence that was dependent on the production of a certificate of 'fair average school attendance'. Furthermore, the report outlined that children under 11 should not be granted a licence that street trading should be prohibited on Sundays, and that girls should be discouraged from street trading. The commissioners also recommended that Day Industrial Schools should be established, a development which occurred in 1868 [9]. Accounts of children working in other industries at this time included work in manufacturing, chimney sweeping, mills and factories.

By the turn of the century, significant social developments were in play that would have a profound effect on the economic activity of young people. 1903 saw the Land Act whereby ownership of the bulk of agricultural land was transferred from the landlord class to the class of small and medium sized farmers. Families at this time were generally large with a modal size of seven to nine children in 1911 reducing to four to six children in the 1970's (Clancy 1985; Kiernan and Walsh 2004). The traditional family type at this time is said to have had its economic base in small-scale family enterprise (farm or small business), worked by family members including children. At this time, large families served to ensure generational continuity as a source of labour and to ensure assistance into old age for parents (Curtin 1986). Breen and Whelan (1993) illustrate the scale of this transformation by contrasting the occupational outlook of new cohorts of young men (15-19) in the 1920s and 1970s;

> *'Over half of the cohort remaining in Ireland in the 1920s could depend on family employment that would ultimately lead to direct inheritance of the family business. By the 1970s this would be true for less that 15% of the cohort'.*

While social developments were occurring which would impact on the employment of children and young people on farms, other developments were occurring which would impact on young people working in other industries. The 1903 Report of the Departmental Committee on the Employment of Children Act recommended making

[9] These schools were established to care for the neglected, orphaned and abandoned children and were run by religious orders and were publicly funded until their closure in the 1970s.

by-laws for persons aged under the age of 11, but is said to have been a 'dead letter' both in Ireland and Scotland. There is general sense from the early Census reports that at this time working for ones relatives or on one's own family farm could be considered not merely legitimate but also valuable, enabling both skill acquisition and character building[10] as well as intergenerational mobility, but the reports also hinted that work undertaken in factories or on the streets was necessary for many, and had negative connotations.

Increasing participation in education: work and education as competing status positions

In a context of political independence and a minimalist state philosophy that was the economic orthodoxy of the period[11], the period 1926 onwards saw increasing legislative initiatives to restrict the employment of children. The School Attendance (1926) Act outlined for the provision of education (attendance at primary schools) for young people up to the age of 16, but was not nation wide, thus encouraging further regional inequalities in access to basic education, despite (minimal) rights to education being outlined in the Constitution of 1922. The School Attendance Act and the Street Trading Act (1926) also made specific references to the restriction of the employment of children, encouraging attendance at school and partially dismissing employment during particular hours or in particular occupations. At this time, the law did not aim to fully prohibit employment among young people and disturbingly, allowed for the continuation of manual labour by 'detainees' in industrial and reformatory schools[12];

> *' [We do not] ...prevent any child in lawful employment from continuing in such employment or preventing the exercise of manual labour by a child lawfully detained in a certified industrial or reformatory school or the receipt by any child of instruction in manual*

[10] Interestingly at this time, in contrast, children's employment on non-family farms for wages or board was becoming more generally depicted as being exploitative and harmful (Mortimer 2003).

[11] It was not until 1923 that the first Fiscal Inquiry Committee was established to investigate industrial policy, thus bringing with political independence the foundations of an open market for globalisation and development in the welfare conditions. Prior to this, the non-interventionalist role has since been blamed for the lack of development in Ireland during the time and contrasts largely with the situation being held today. For example, it is said that the Minister for Economy, Patrick McGilligan, at the time said 'it is no function of the government to provide work for anybody!'.

[12] Recommendations such as these continued despite the known harsh working conditions of these places. In fact the Department of Education noted in 1924 that there were more children in industrial schools in the Irish Free State than in all of the United Kingdom.

labour in any school' as 'a small amount of regular employment is of itself a useful part of a boy's education' (Pg 19).

So in part, the restriction of employment of children and young people was linked to education but as in 1901, it could be argued that this was a time during which education and work were largely in competition with each other for the majority of the youth population. It is also likely that, particularly for those in farming communities, pupils were expected to absent themselves from school as the needs of the farm dictated.

Employment legislation is not particularly evident from the 1930s onwards but there are references to the employment of school children as van boys and warehouse boys (1913), references to juvenile employment, employment after the war, employment in the theatre, film and employment in shops. It was not until ten years later that the Conditions of Employment Act (1936) changed the legal age to work from under eleven to under the age of fourteen, particularly in industrial work. However, the very broad definition of 'industrial' did not exclude many areas. Because the act defined industrial work as work other than agricultural, commercial, domestic, mining or the transport of persons or goods[13], it suggests that children and young people were present and played an active role in these industries. Again, specific restrictions were made for young people under the age of fourteen, but particularly for female workers (less than 18 years old) to engage in industrial work between the hours of 10pm and 8am. Furthermore, employers were prohibited to employ any young person in industry between the ages of 14-18 between 8pm and 8am. It would seem that at this time there may have been a strong moral condemnation for a system that employed young people in these industries, but it is also quite likely that work undertaken by children at this time was necessary for the family economy[14]. It could be that legislation called for the regulation of child labour rather than for its abolition, believing that families could not afford to give up the wages of young

[13] Industrial work did include industrial work in manufacturing, altering, cleaning, repairing, ornamenting, finishing, adapting for sale, testing, grading, packing, breaking up, demolishing or transforming any article; the killing of any animal or bird; constructing or factory related work; telecoms; electricity; gas; water; sewage; shipbuilding; stonemasonry; cleaning.

[14] A similar trend has been observed in America, particularly in relation to the working class family economy (Barnhouse and O'Connell 1988, Tilly and Scott 1978).

children. Later the Factories Act 1955 applied young persons employed in factories to the conditions of the act, irrespective of whether they were working for wages or not.

It was around this time that the first sociological study reflected on the situation of youth, and came from Arensberg and Kimball's' (1948, 1968) account of family and community in Ireland. While the study was widely criticised, it did offer some insight into young peoples' participation in family labour on the farm, outlining the gendered nature of work and the early age at which work begins;

> *'The training each sex receives from childhood in farm work ...each learns his or her part in family economy, not as vocational preparation buys as a making ready for marriage. The boy acquires his man's skills and techniques for the farm and farm family he may head himself some day; the girl learns the woman's role as an integral part of her future state of wife and mother. Each learns to expect of the other not only the loving consideration of husband or wide but the proper skills in farm economy' (Arensberg and Kimball, 1968:48).*
>
> *'By the time he is ten or eleven he will be brought home from school, if needed, to take his part in the important agriculture work of the year, particularly at spring sowing and hay harvest' (Arensberg and Kimball, 1968:53).*

More legislation was to follow towards the end of the 1970s, again offering insights into the work being carried out by young people. Restrictions included the employment of children (people under the school leaving age) at night, after 8pm (see the Protection of Young Persons (Employment) Act 1977). In 1979 proceedings to draft an order into the Protection of Young Persons (Employment) Order spurred a debate in the Dail about the exploitation of children in employment during school term, and further contributed to debates about the appropriate balance of education and work for young people. The Minister for Labour at the time, Garret Fitzgerald, argued that the withdrawal of the right to engage in limited employment during the school term laid under the act could be contrary to the wishes of many parents. This view argued that parents were in favour of the developmental consequences of part time job holding, arguing that a limited period of work outside of school hours could be a useful experience for young people in the process of adopting to employment

and in deciding careers. Others expressed concern that the income gained from such employment may form a valuable part of the household budget, but also adding that 'improvident parents' could begin to rely on their young children sending them out to work much too soon. While a decision was taken to research into the employment of school going youth between 1979 and 1980, I have not been able to source this information if it ever came to see the light of day. Subsequently, the act was renamed the Protection of Young Persons (Prohibition on Employment of Children) Order in 1981. The order made provision for employers to be prohibited to employ children attending education other than second level education to work during school terms. In addition it also made allowances for employment as part of a programme of work experience.

From the early 1980s studies relating to part time jobs held by young people began to occur in the literature and part time employment was found as a variable in datasets. Because Irelands entry to the European Union pre-dated these studies, it is likely that a wider examination of youth transitions was the driver behind an exploration of part time jobs held by young people. The later literature indicates that in contemporary farm families, children's work is still an integral part of the family economy (O'Hara 1998). However, advocates of child protection no longer distinguish between family and non-family labour arguing against the both. The most recent employment legislation has been the Protection of Young Persons (Employment) Act 1996 outlined conditions for 16-18 year olds and those attending programmes offering a work experience. The act also makes additional provisions in relation to the employment of children in terms of the amount of time the child can be in employment. It also outlines exclusions from or modification of certain provisions of Act by regulations in relations to employment of close relatives. In particular, it also outlines prohibition on double employment; 'an employer shall not permit an employee to do for him or her any form of work on any day on which the employee has done any form of work for any other employer'. The act also recognises that time spent on vocational training by an employee who is a young person working under a combined work/training scheme or an in-plant work experience shall be deemed

working time. It also outlines exclusions from or modification of certain provisions of Act by regulations in relation to employment of close relatives.

Studies on part time job holding by young people in Ireland have only become prominent since the late 1990s early 2000's (Stack et al., 1998; Morgan 2000; McKenna and O'Maolmhuire 2000; Stack 2001; McVicar and McKee 2001; Leonard 2001, 2002, 2003, 2004, 2005; McCoy and Smyth 2004, Gilligan 2000). These studies have generally focused on the participation and prevalence of part time job involvement. Each of the studies has reported significant levels of participation in paid work by young people aged 12 and over, even when excluding babysitting. The concern with the interplay between work and education continues as the Protection of Young Persons (Employment in Licensed Premises) Regulations 2001 – 2001 Code of practice concerning the employment of young persons in licensed premises was enacted. More emphasis has recently been placed on child poverty and street begging (Barnardos 2005; Coalition 2005; Corbett and Kerrins 2004; Layte et al. 2006), placing emphasis on ensuring that at least one parent in a couple headed household is in paid work as an effective and efficient way to end child poverty. Academic literature on street children (Bar-On 1997 on children in Africa – Namibia, Zambia, Ghana) and on child labour in general (Abernethie 1998, McKechnie et al 1999), child employment research in Britain (McKechnie et al 2000; Bolton 2001) and on human rights and the rights of the child (Abernethie 1998) and the gap between historical and present day child labour (Rahikainen 2001) including migrant child workers

2.3. The Development of School Based Vocational Education at Second Level Education

An overview of the Irish Education System

Table 2.2 provides an overview of the second level education in the Republic of Ireland. Virtually all pupils experience some form of second level education as school attendance is compulsory until the age of 16 or completion of the Junior Certificate examination, whichever comes later, and most pupils transfer from

primary level at 12 or 13 years of age. There are three main types of secondary schools: secondary, vocational and community/comprehensive.

Table 2.2: The Irish Education System

	Typical Age	
	Ages 21/22 onwards	Post Graduate Study
Post Leaving Certificate Course Apprenticeship Training Private Business School	Ages 17-18 onwards	Universities Institutes of Technology Private 3rd Level
FURTHER EDUCATION		**THIRD LEVEL**
FURTHER EDUCATION OR THIRD LEVEL EDUCATION		
Typical Age		
Ages 17-18	6th Year	Second level education is provided in Secondary, Community, Comprehensive and Vocational Schools, Private and Special Schools
Ages 16-17	6th Year /5th Year	
Ages 15-16	5th Year / Transition Year	
Ages 14-15	3rd year	
Ages 13-14	2nd year	
Ages 12-13	1st year	
SECOND LEVEL EDUCATION		
Typical Age		
Ages 11-12	Sixth Class	Primary Education is provided in National Schools, Private Schools (from 1st class onwards) and Special Schools.
Ages 10-11	Fifth Class	
Ages 9-10	Fourth Class	
Ages 8-9	Third Class	
Ages 7-8	Second Class	
Ages 6-7	First Class	
Ages 5-6	Senior Infants	
Ages 4-5	Junior Infants	
PRIMARY EDUCATION		
Typical Age		
Ages 3-4	Early Start	
PRE-PRIMARY EDUCATION		

The development of the Irish educational system

The Irish system of apprenticeship is said to have originated from the Guild system of apprenticeships around the eleventh century Hearn et al (2000). Ireland lagged behind many European countries with industrial development in the nineteenth century and so the establishment of a technical education in second level education is twentieth century story (Coolahan 1980). The reasons attributed to a lagging technical education system include the lack of realisation of its importance, industrial sluggishness and a lack of clarity as to what technical education entailed.

For the development of school organised work experience provided in school based vocational education we begin at the 1930s, when Ireland was being described as a 'poor agricultural nation' and attempts were made to achieve a more stable economic position through the establishment of economic committees, semi-state initiatives and a more formal education system. The post primary education system at the time consisted of academic secondary schools only. The syllabus in secondary schools at this time included modern languages, science, commerce, drawing and manual instruction - which scored lower than other subjects and Irish scored higher than English in examinations (Coolahan 1980).

While attempts had been made to improve technical education provision in the late 1800s, the *1930 Vocational Education Act* resulted in the establishment of a second type of second level school – the vocational school - intended to provide vocationally orientated education geared towards the needs of local employers. At the time vocational education committees (VECs) were also established and were responsible for the provision of a 'suitable' system of continuing education and technical education in committee areas. While private secondary schools at the time delivered an academic curriculum, public vocational schools specialised in trades, agriculture, domestic and secretarial training. Until the mid 1960s the terminal examination was the Group Certificate (equivalent to the level of the Junior Certificate today) for almost all full time vocational school pupils (Hannan et al., 1983). Student intakes into vocational schools were generally pupils mainly from small farm or working class origins, or those of lower academic ability who were seen by their parents to be

unsuited for the academic curricula of secondary schools. Under the 1903 Vocational Act 'continuation education' was provided to 14-16 year olds and was intended to;

> *'Continue and supplement education provided in elementary schools and to include general and practical training in preparation for employment in trades...and also general and practical training for improvement of young persons in the early stages of employment'*

At this time a system of higher technical education was in existence for those aged 16 and over. Technical education - education related to trades, manufactures and other commercial pursuits[15] - was mainly conducted through evening courses and had two main purposes; to train young people for entry into to particular employment and to improve the skills of those already employed. The nature of education provided in continuation education could not infringe on general education provided in national (primary schools) and secondary schools, and had to be practical and vocational in nature, and so both continuation and technical education were provided in vocational schools only. Based on recommendations from the Technical Education Commission, in 1936 Technical School examinations were reorganised with a more practical emphasis and tests of occupational efficiency. Furthermore, written and practical examinations were held in some courses[16]. At this time, the Apprenticeship Act of 1931 also established apprenticeship committees to regulate training and included provisions for the duration of apprenticeships, wage levels and the regulation of training courses. Up until this point, training outside of the apprenticeship system was virtually non-existent.

Despite the fact that the Primary School Certificate had been in existence since the 1920s, it became compulsory in 1943. On the eve of an open economy, and a corporatist approach to economic development, 1940s Ireland was also increasingly concerned with the interplay between work and education for young people, but this time the concern was now with youth unemployment. A Commission on Youth Unemployment was established between 1943-1951 during the second world war when unemployment and emigration was high, with a remit to improve the education

---

[15] Technical education also included the occupations of girls and women connected with the household, and education in science and art and physical training.

[16] These included building and electrical engineering, mechanical engineering, motorcar engineering, applied chemistry, commerce, domestic science, art, farriery, telephony and telegraphy.

and training of young people in order to prepare them for the world of work (Walsh 1985). At this time, a Commission on Vocational Organisation was also established to examine and report on the possibility of extending vocational organisation by legislative or administrative action. The commission on vocational organisation reported (1943) that there was inadequate agricultural and rural emphasis in vocational schools and that technological training which was 'the keystone in the industrial development and economic security of every nation' was not receiving the attention it deserved. In the UK at this time, the first enquiry into the transition from school to independent life tool place, recommending that

> *'Schools should not attempt to prepare pupils for particular types of employment, but can serve industry by helping to develop personal qualities and the general rudimentary skills and by using local knowledge as teaching material'.*

From the 1950s onwards, educational expansion began to have an impact as Irish class structure saw a shift from property ownership to educational credentials for wage accumulation (Fahey and McLaughlin 1999). At this time, the Irish economy was inward focused, and industrial policies adopted concentrated on the imposition of trade barriers and the preservation of ownership of industry at national level. School leavers were privy to a fall in migration but still faced economic difficulties. Findings from the Commission on Youth Unemployment recommended (1) that councils of education should be set up in various parts of the country to link together those engaged in education generally and the ordinary people and (2) the extension of the school leaving age. The commission saw the problem of youth unemployment as a reflection of general employment and their remedies included the expansion of industry, the raising of the school leaving age, the retirement of overage workers, and the introduction of special schemes designed to provide employment for young people and special measures to deal with unoccupied youth (Walsh 1985). In their recommendations, they encouraged young people to play a useful part in the wider economic life of the country and as members of the wider economy. Around this time the White Paper on Economic Expansion was published which led to the first economic programme and economists began to emphasise education as an economic investment rather than a consumer service. Changes were made to the apprenticeship system as the National Apprenticeship Board was established with power to require

all employers to send their apprentices to training courses. As the 1950s drew to a close, all secondary schools became privately managed and controlled, and there was great concern in the vocational education sector about the condition of vocational education. Randles (1975) argues that belief in equal opportunity in education became intense in the 1950s due to educational expansion in Europe, particularly in Britain, and the idea that education – particularly vocational and technical education – could solve some economic problems, high emigration and secondary employment and the 'cult' of the teenager.

The end of the bi-partite system

By the early 1960s, youth employment rates began to rise, providing favourable economic circumstances for the employment of school leavers in Ireland, as well as a steady improvement in real wages and a rise in post primary education participation rates (Walsh 1985). Labour market policy at this time was largely confined to apprenticeship training and the Irish industrial sector was largely left to its own devices to provide the skills necessary for its growth and development. From the mid 1960s onwards, further reform of the training system at national and organisational level began. 1967 saw the Industrial Training (Apprenticeship) Act, which provided the first evidence of policy away from voluntarism and towards institutional intervention[17]. A state body (AnCo) was established to promote training and to assume responsibility for industry and commercial training, including apprenticeships. At this time, there were inklings of new initiatives in second level education in government speeches[18] and that a separate technical Leaving Certificate would be introduced, but was never realised (Coolahan 1980). With developments such as the 1964 National Industrial Economic Council ('economic planning must be

[17] It has been argued that at this time the voluntary approach to training was failing to meet national needs which resulted in the Republic of Ireland lagging behind most of her mainland European counterparts (Coolahan 1980)

[18] While continuation and technical education were generally conducted in vocational schools, the proposed changes included the introduction of comprehensive schools, the recommendation that two year courses in vocational schools would be extended to three years and that the Intermediate Certificate would be offered by both secondary and vocational schools, and that regional technical colleges would be founded to help boost technical education and align manpower needs and educational provision.

active') and the important 1965 Investments in Education Report[19], a key educational policy in the 1960s was to encourage greater participation in post primary schooling and to improve access for all. A number of policies were aimed at moving away from a bipartite system. In 1967 free second level education was provided for all and free transport to school was provided, a more comprehensive curriculum was developed, the Group, Intermediate and Leaving Certificate curricula were integrated and non-denominational comprehensive schools[20] were introduced. Comprehensive schools were to be co-educational schools open to all classes, genders and levels of ability, offering a wide curriculum, and were introduced in an attempt to reduce the gap between the academic secondary and vocational sectors. Furthermore, the educational reforms of the 1960s meant that all three sectors became integrated in a common curriculum and examination framework, thus providing the cornerstone for contemporary second level education provision.

Emergence of educational interventions providing work experience

Much less attention has been placed on the observation that school based vocational education in the Republic of Ireland has been in transition for some time and that labour market interventions – that is, work experience – are now used as an educational intervention in schools.

Historically, the purpose of providing vocational programmes with a school organised work experience element were explicit in their aim, and were originally established to address problems of youth unemployment and prepare the most disadvantaged students' for entry-level jobs in occupations requiring less than a Leaving Certificate. However, it could be argued that over the past 30 years, the purpose of school based vocational education and school organised work experience has shifted towards a broader preparation that develops the academic, vocational and technical skills of students in vocational education programmes. However, this type of vocational education policy now also encourages those who complete second level

[19] The Investments in Education report has been deemed a catalyst for sociological studies of Irish education. Findings resulted in the demand for enhancing the provision of education, particularly at second level. The report highlighted social class and regional disparities in educational participation as well as skill shortages in terms of manpower with suitable qualifications for work in the 1970s.

[20] The establishment of comprehensive schools was seen as being influenced by contemporary trends in Britain and in some continental countries.

education students to continue their studies in higher and further education, marking the greatest departure away from the traditional focus of vocational education, now giving way to a broader purpose – one that includes greater emphasis on academic preparation and provides a wider range of career choices.

1973 saw Irelands' entry to the EEC with the second highest unemployment rate. At this time, there was curtailed expenditure on education and training provision, rather than being seen as an investment, it was deemed 'non-essential'. The European Regional Development Fund was established in Ireland in 1977 reflecting the increasing attention to regional disparities in education and training as was originally pointed out in the Investments in Education (1967) report. While the 1970s saw foreign investment with the influx of multinationals, despite such investment (and training), the Irish economy drifted into crisis from the mid 1970's onwards. This was largely due to the recession brought about by oil price shocks and soaring foreign debt resulting in escalating unemployment (Walsh 1980, O'Connell year). An explosion in youth unemployment was assumed to be caused partly by a lack of skills and motivation among school leavers (McNamara 1989) - young people were perceived to be devoid of human capital and unlike previous generations, were not motivated to work. However, such themes were quickly put aside as the future was to bring increasing vocational preparation alongside increasing youth unemployment.

Williams and O'Shea (1981) argued that the 1970s saw the school being used to reduce the unemployment pool. In 1970 it was announced that a fourth type of second level school - community schools were to be developed. These schools were to provide free schooling of a comprehensive nature to all in the catchment area without pupil selection procedures, having a special emphasis on establishing reciprocal relationships between the school and the surrounding community and in 1972 the school leaving age was raised from 14 to 15. At this time the post primary system was bi-partite – academic secondary schools on the one hand and vocational schools on the other, emphasising technical and applied studies, without much liaison between them. The policy now became eroding the academic/technical divide by raising the status of vocational schools and encouraging a more comprehensive

curriculum in both vocational and secondary schools. Vocational schools could now offer the full range of post primary studies. In the early 1970s a post-Leaving Advanced Certificate year was introduced as an optional matter, but only taken by a small number of schools (which was later to become a significant development in school based vocational training).

At this time, many curricular changes were introduced into second level schools, influenced by the pressure for a closer alignment of school curricula with the needs of a more industrialised economy - new subjects such as metalwork, engineering workshop theory and practice, accounting and business organisation were introduced into the mainstream curriculum (Coolahan 1980). Further work experiences organised through the school (SCHWK) were also developed. In 1974 the Transition Year Programme was introduced in schools and 1977 also saw the introduction of pre-employment courses into mainstream schools. These educational interventions were introduced because of a concern with the overly academic nature of senior cycle education. Guidelines from the Department of Education stated that 'the general aim of these courses is that of bridging the gap between values and experiences normally part of traditional education and those current in the adult world of work' (see Smyth et al 2004:2). These educational interventions were (partially) funded by the EEC under a funding stream aimed at improving the transition from school to work.

School based education offering a school organised work experience emerged from the pre-employment course that was initiated in the pre-employment course was a one- year full time course aimed at students (generally aged 15) who did not intend on going on to Leaving Certificate but who did not wish to or could not go straight into employment. The aim of pre-employment was '*to bridge the gap between the values and experiences normally part of traditional education and those current in the adult world of work*' (McNamara 1989). In doing so, pre-employment courses aimed to provide social, general and technical education with work experience in industry or commerce. However, from the onset the provision of school based vocational education was structured by school type and social class, generally provided in vocational and community/comprehensive schools but not in secondary

schools. In addition, the provision of school based vocational education was associated with the most disadvantaged of young people. According to Williams and O'Shea (1981) the provision of pre-employment courses in schools were the first sign of the school being used to reduce the unemployment pool by providing students with work experience and career foundation. These notions were reinforced by a research study involving a cohort of students in a school in Ballymun, a highly disadvantaged area in North Dublin; which identified pre-employment students as being the most vulnerable and most at risk of their age group in the system (Williams and O'Shea 1981). The study saw pre-employment students as being typically failures of the academic system, particularly from deprived backgrounds. While the (limited) literature on pre-employment courses indicates that pre-employment courses were successful through the high levels of take-up, no comprehensive research was undertaken to evaluate post programme performance (Department of Employment and Enterprise, 1994). The programme terminated in 1983 with approximately 120 schools involved (Kellaghan and Lewis, 1991). Following pre-employment courses, a further response to youth unemployment was the Vocational Preparation and Training Programmes (VPTP).

VPTP- Vocational Preparation and Training Programme

In 1978 other programmes at upper secondary level - the vocational and training preparation programmes – were piloted and guidance teachers were placed in schools to help pupils through counselling and vocational guidance. VPTP evolved from pre-employment courses and was presented as part of the Department of Educations' response to the social guarantee for early school leavers (Department of Employment and Enterprise, 1994). The programme was originally aimed at students who had completed compulsory education (those deemed 'Priority Group 2') but who did not have adequate skills to enter the labour market and was largely funded by the European Social Fund. The VPTP differed from pre-employment in that secondary schools would now be permitted to introduce the new course. The programme was not particularly standardised in that the structuring of the programme, the placement of students in work placements, assessment and certification were all organised by individual schools (O'Donovan 1990).While chronologically VPTP followed pre-

employment courses, in 1978 thirty pilot VPTPs were implemented with 'training for jobs' to be their principal aim (McNamara, 1989) and the programme then became mainstream in 1984. While secondary schools were now included, 80 per cent of VPTP provision continued to be provided in vocational schools and community colleges (Department of Enterprise and Employment, 1994). By 1987/88 21,000 students participated in VPTP, 13,000 of which were female and 8,000 male (O'Kennedy and Whelan, 1989).

VPTP was a two-year programme and was divided into two components – VPT1 and VPT2. VPT1 was a one-year course comprising vocational studies (40%); preparation for working life (25%) and general studies (35%) aimed at student's aged 15-18. It constituted 800 hours of full time training including between 200 and 400 hours of work experience. The primary aim of VPT1 was to equip students with vocational training to enhance their employment prospects; it was aimed as a preparation for work or entry to VPT2. VPT1 was certified through a Certificate of Participation from the Department of Education and Science, with the addition of local certificates dependent on the content of the course.

By the mid 1980s Ireland witnessed continuing mass unemployment and the provision of programmes such as vocational training and preparation became mainstream in schools and post-Leaving Advanced Certificate courses and the Senior Certificate Programme were introduced. In 1985 VPT2 was introduced, as ideally VPT1 students would progress into either VPT2 or employment or apprenticeships. The aim was to serve older students at a higher educational level than VPT1, but still provide for those below the Leaving Certificate level. However, as educational reform has an obvious impact on schools, schools can also have an impact on educational reform (Gleeson et al. 2002). It was reported that VPT2 was often used as a post leaving certificate (PLC) option in schools (Department of Employment and Enterprise, 1994). Thus a scenario ensued whereby a number of students participating in VPT2 already had their Leaving Certificate and a number of course providers would expect their VPT2 students to have a Leaving Certificate. Transition Year was also reformulated. Studies of VPT2 carried out at the time found that principles in schools reported that the majority of participants found jobs upon

completion mostly in commerce and distribution, manufacturing and public utilities and personal services (ESRI 1989). Involvement with employers was said to be high and the study concluded that VPT students had better job prospects than those who enter the labour market straight from second level without VPTP. A second evaluation of VPTP carried out by the NESC (1993) indicated that VPTP programmes were introduced as a departmental response to the social guarantee provision for early school leavers rather than a formal vocational preparation scheme based on an analysis of labour market needs. However, a qualitative study carried out by O'Donovan (1990) outlined that the skills being taught in VPTP did not necessarily match the skills needed by employers; for example, secretarial students who were taught a range of clerical skills were not employed as receptionists, clerical workers, typists or secretaries. Further findings suggested that students who had failed their junior cycle but who had continued on to VPTP had fewer chances of anyone else to gain employment. Just one out of ten was in full time employment and all of these students came from homes where both parents were unemployed. At this time, studies relating to part time jobs held by young people began to occur in the literature and found in datasets.

State policy throughout the 1980's became increasingly concerned with reducing 'educational disadvantage' and 'educational inclusion' focusing on those 'failing' or being 'failed' by the education system. Initiatives targeted on 'disadvantaged schools' and 'disadvantaged areas' were primarily designed to reduce the scale of underachievement among children and young people from the most disadvantaged family backgrounds and were highlighted in The Education Act 1998. The 1982 review of the European Social Fund (ESF) was largely influenced by the worsening employment situation, especially among young people[21]. In the 1980s, Labour Force Survey data shows that 72,000 young people under 25 were unemployed or seeking a first job. The unemployment rate for youth was 20 per cent with a corresponding rate of 11.8 for adults (Breen 1985; Breen 1988). At this time, young people who entered the labour force without qualifications were more likely to

[21] The Commissions objective was to 'provide support for the implementation of a training guarantee for all young people and to promote a dynamic response to the problem of youth unemployment'. The priorities for new schemes, which came into force in 1984, stipulated that young people must make up at least 75% of the total beneficiaries of the Fund.

be unemployed than those who have qualifications; indicating that the higher the level of educational qualification, the lower the incidence of unemployment. Further research indicates that those with previous experience of work are more likely to be in employment than those who do not, particularly in times of when the market is poor (Breen 1986).

The priorities for youth schemes subsequently defined in the Commissions guidelines for the management of the fund comprised (1) Schemes for the under 18s combining vocational training and work experience which offered employment prospects (2) Vocational training for young people (18-25) with inadequate qualifications for jobs involving new technology and (3) job premium schemes in the absolute priority regions. At this time, output growth was very low; the Irish economy was in recession well after the second half of the 1980's, a time when other Western economies had recovered. This created a sharp divergence in labour market conditions between Ireland and particularly the UK. Between the 1980s and 1990s, the unemployment rate rose from 7.3 to over 13 per cent (Sexton 2001). By the end of the 1980's a range of developments had taken place, which had the potential to transform the Irish economy one of which was the negotiation of social partners and wage agreements while the benefits of investing in education were beginning to materialise.

Current provision programmes offering school organised work experience at upper senior cycle

At the start of the 1990s, unemployment continued to grow and was at a peak of 16 per cent by Spring 1993 (Sexton 2001). To date, while unemployment has increased, youth unemployment has remained consistently high. O'Connell (2001) outlines that Irish spending on secondary and tertiary education levels relative to other OECD countries actually worsened from 1994 to 1997 (O'Connell 2001). At the start of the 1990s, a growing emphasis was placed on the link between education and economic growth and labour market integration of young people has remained a priority of EU social and economic policy (Canny 2001). Increasingly, the focus at EU level was to raise the skill level and reduce vulnerability. The 1993 'Delors White Paper' or the Commission on Growth, Competitiveness and Employment initiated the Youth start

group of measures. During the period 1994-1999, European Structural Funds (ESF)[22] were allocated in an effort to accelerate social and economic development. The promotion of investment in vocational training came from the Essen European Council summit in 1994 as part of a wider process to redress the unemployment problem in the EU, which prompted national action plans. It recommended 'to improve employment opportunities by promoting investment in vocational training (especially for the young) and encouraging life-long learning'. The aim of 'vocational integration of young people' under the Human Resources Initial Education and Training sub programme acknowledged the view of the high level of youth unemployment and the imbalance in education and training[23]. The funding provided assistance for the LCVP, LCA and PLC courses with an aim to reducing the percentage of young people leaving school with inadequate qualifications to 10 per cent by the year 1999. In terms of funding, the LCA and LCVP followed on from the VPT to provide integrated education, training and work experience for secondary level students to aid with economic and technological change.

In 1993, a NESC report argued for stronger vocational education at upper second level and an overall recognition of a vocational orientation at all levels of the education system to facilitate future employment growth and participation in the labour market (NESC 1993). However, the OCED (1998) argues strongly that there should not be complete separation between general education and vocational training, since the acquisition of occupational skills cannot be pursued on their own without regard to forming complete and well developed personalities. The 1998 European Employment Guidelines as part of the improving employability pillar included a stream dealing with easing the transition from school to work. As a remedy, it required member states to improve the quality of their school systems in order to reduce substantially the number of young people who drop out of the school system early; and equip young people with greater ability to adapt to technological

[22] The overall priorities for the ESF for 1994-1999 programming period were (1) to provide services for the large number of young people entering the labour market (2) to enhance employment prospects of the long-term unemployed and those at risk of exclusion from the labour market. Mainstream ESF action also aims to improving access to and enhancing the quality of education and initial training.
[23] In England, Competitiveness (England) and People and Prosperity (Wales) 1994 outlined provision to ensure that all pupils have at least one weeks work experience in the last year of compulsory education.

and economic changes and with skills relevant to the labour market, where appropriate by implementing or developing apprenticeship training. The provision of work experience encourages a partnership approach, and social partners are urged, at their various levels of responsibility and action, to increase the possibilities for training, work experience, traineeships or other measures likely to promote employability. The European remedy was reflected in the White paper on Human Resource Development (1997) which cautioned the relatively high but declining rate of school leavers leaving the education system with little or low qualifications and the under-developed vocational orientation of second level education have combined to place particular strains on the national training system (Hearty et al; 2000). Policy was aimed at strengthening pathways through initial education and into work and providing experience in work settings while in education. By the early 1990s, VPTP was no longer provided in schools but replaced by two programmes at upper senior cycle that currently remain today: the Leaving Certificate Applied and the Leaving Certificate vocational. The Leaving Certificate Vocational programme offers all aspects of the established Leaving Certificate with the addition of 'vocational specialism's' with periods of work experience. The Leaving Certificate Applied provides an alternative to the established Leaving Certificate and the Leaving Certificate Vocational and is aimed at young people who are in danger of leaving school. However, those young people who did not progress to the established Leaving Certificate were effectively branded as failures, receiving no vocationally relevant or work-orientated qualification (Wickham and Boucher 2004). At present, access to third level education is not permitted directly through Leaving Certificate Applied.

The Contemporary Context: 2000-2007

The period between 1993/94 and 2000/01 saw favourable labour market conditions for school leavers with an increase in the provision of new jobs in the services sector, particularly in terms of business and financial services, transport and communication, with a moderate increase in manufacturing and construction with a decline in agriculture (Sexton 2001). However, the Lisbon European Council of March 2001 called upon the council to 'improve employability and reduce skill gaps' (Canny

2001:363). Based on the goals of the Lisbon agreement, State policy continues to show concern with early leaving, and is evident in policy reports such as the National Development Plan 2000-2006 (who recommended investment for the prevention of early school leaving), the 2000 Education (Welfare) Act (which outlines procedures governing school attendance and expulsion, specific provisions for continuing education and training for 16-17 year olds who leave to take up employment, and engagement of employers in educational welfare of young people), and the Programme for Prosperity and Fairness (2000) (which placed a strong emphasis on participation in and benefit from education as well as the need for more integrated links between the voluntary sector and statutory sectors). At the international level, the OCED (2000) Thematic Review of the Transition from Initial Education to working life continues to stimulate concerns about youth unemployment and those at risk in transition, and the review outlines the widespread opportunities for young people to combine workplace experience with education as a key feature of effective transition systems.

At this time, debates surrounding differentiation at upper senior cycle have increased and in their report NESF (2002) recommends that for those who wish to combine education and work the LCA should be provided on a part time basis[24]. The report also outlines concern that part time employment can lead to an early exit from the formal schooling process. In December 2002, the NCCA published 'Developing Senior Cycle Education: Consultative Paper on Issues and Options'. The paper initiated a consultative process through which the NCCA sought the views of students, parents, teachers, schools, educational and social bodies, and other interested individuals and groups, on how the senior cycle should develop into the future. Following the review, the NCCA has issued its advice to the Minister of Education and Science, Mary Hanafin TD, on the future shape of senior cycle education. As part of the preparation for the consultative paper, the NCCA commissioned research on international developments in upper secondary education and hosted an international seminar on post-primary senior cycle education at which

[24] In fact a pilot initiative (Linking Education to the Workplace) is currently in place, which facilitates participants to work part-time while sitting the Leaving Certificate Applied and pursue FETAC options (Joyce 2004; NESF 2002).

this research was discussed. Furthermore, the National Qualifications Authority of Ireland was established in 2001 with a remit to establish and maintain a framework of qualifications based on standards of knowledge, skill or competence to be acquired by learners.

More emphasis has been placed on business-education partnerships in a context of a knowledge-based economy. The Programme for Prosperity and Fairness (2000) outlines the need to deepen business-education industry linkages and co-operation. Local Development Social Inclusion Programme (2002) outlines the need for more improved and more integrated links between schools, youth, and community and welfare services. The Expert Group on Future Skill Needs (2004) in their submission to the DES in the YES Review outlines that 'the greater prominence of high tech manufacturing, internationally traded services and R&D activities in Irelands economy in the future means that young people must achieve high standards of generic skills to complement their academic and vocational ones. These generic skills include communication and influencing skills, team working, critical thinking as well as self-management and self-directed learning' (Expert Group on Future Skill Need, 2004: 5). The report acknowledges findings from the Fitsimons, O'Gorman and Roche (2002) study that secondary education can play a role in promoting entrepreneurship and outline that 'the objectives of education will include nurturing in young people those personal qualities that form the basis of entrepreneurship such as creativity, spirit of initiative, responsibility, capacity of confronting risks, independence' (Expert Group on Future Skill Needs, 2004:6). Furthermore, in January 2005, the OCED/DES held an international colloquium on business-education partnerships.

2.4. Discussion

The present chapter has aimed to outline the work and education activities of young people alongside changes in the wider economy. According to Muller and Shavit (1998) the institutional framework given at an existing time in a particular society largely depends on solutions in the past for the general problem of training and employment. The political and economic developments of the 20th century brought the idea of using the school to train young people for work. As Ireland moved from

an elite second level education system in the 1920s, participation in education was promoted by the need for more human capital investment in the individual for the greater good of society. From the 1930s to the 1960s, the Irish economy was highly protected and many attempts were made at increasing educational participation among young people. As a result, children were no longer resources but representatives of the family status in the community. European intervention from the 1970s onwards meant a focus with the concern of youth unemployment and an increased responsibility for schools to prepare young people for employment, and so the emergence of adolescent vocational development, through work experience, career counselling and the development of statistical data pertaining to youth unemployment (OECD 1984). While the bi-partite system of separate technical and academic education at second level ended in the 1960s, the reforms to unify general and technical education resulted in a linked system (see Raffe et al 1998) to bridge the divide.

By adopting an historical perspective, we can be confident that changes have occurred in the work status of young people, an observation that has generally been lacking in the Irish context. This chapter has indicated that even when child labour was at it's most prominent, based on the account by the commissioners; it was often associated with children coming from disadvantaged circumstances. It has also highlighted how legislative action in relation to child employment has been undertaken very slowly in the Irish context, for example, employment was prohibited for those aged 11 or younger, an enforcement that was not changed until 1936; a time when it was estimated that many young people still engaged in work activities, particularly industrial work. By taking this approach, we can understand how the literature on early work experiences is in its infancy, with academic studies beginning in the 1980s and 1990s.

What is interesting is that the provision of programmes offering school organised work experiences at second level education in not new to the Irish context. Section 2.3 outlined that the development of school based vocational education with elements of work experience in the Republic of Ireland emerged from labour market

interventions. These interventions were numerous; pre-employment courses, Transition Year, Vocational Preparation and Training Programmes (VPTP) and more recently the Leaving Certificate Applied (LCA) and Leaving Certificate Vocational Programmes (LCVP). The aim of this section was to highlight how educational programmes offering a school organised work experience has developed. In doing so, it should contribute to a better understanding of school based vocational/pre-vocational education in the Republic of Ireland, and so make it easier in the future to draw comparisons or similarities with other education systems. It should also lead to a better conceptualisation of the development of vocational education.

In the Republic of Ireland, school organised work experience is provided through senior cycle education, unlike the systems of the UK, it is not provided in junior cycle (pre 16). In terms of classifying the current model of vocational senior cycle education, LCA can be identified as a pre-vocational track while the LCVP could possibly be classified as what is termed the 'new Vocationalism' (Grubb 1996) in so far as it contains both vocational and academic elements as well as each other separately. Insofar as there is a vocational underpinning with these programmes, it is argued that it deals more with the process element of work rather than developing specific skills (Tuohy 2002). What is specific about the Irish case is that school organised work experiences are on offer to all senior cycle students. The established Leaving Certificate programme does not contain an element of work experience unless TY has been undertaken. That is, the provision of work experience alongside an academic course can offer a route to university or the labour market.

The development of work and education activities undertaken by school age youth has been accompanied by the context of the economic, social and political circumstances in which these developments have taken place. The next chapter considers other institutional contexts and the occurrence of early work experiences before leaving school.

Chapter 3: A comparison of early work experiences undertaken by youth in the Republic of Ireland and other OECD Countries

3.1 Introduction

This chapter considers the early work experiences that young people acquire before leaving school in comparative aspect. As well as examining the educational programmes that offer school organised work experience and prevalence of part time jobs holding, the wider transition system within which this activity occurs is also examined. Mills and Blossfeld (2004, 2005) outline that the way in which countries combine theoretical learning with practical work experience has direct implications for early labour market transitions. However, there is little comparative research on national differences and similarities in the relationship between early work experiences undertaken before leaving school – that is, institutionally organised and non institutionally organised – and occupational allocation. This field is much less developed, both theoretically and empirically, than highly developed comparative research on national differences and similarities in the relationship between educational qualifications and occupational allocation.

This chapter is outlined as follows. The following section considers the dominant research questions being addressed. Section 3.3 provides an overview of the literature which places the Irish education system in comparative aspect. Section 3.4 considers the countries in which vocational specificity at second level education has been strengthened. Section 3.5 considers countries in which school organised work experience is an element of second level education. Section 3.6 provides an overview of participation in part time job holding. Finally, section 3.7 considers combinations of early work experiences.

3.2 Research Question

Two research questions are asked in this chapter. Firstly, how does participation in early work experiences – part time jobs and school organised work experiences – among young people in Ireland before leaving second level education compare to other institutional contexts? Secondly, by exploring early work experiences in

comparative aspect, what can we generalise about the influence of the institutional structure on the uptake of early work experiences?

3.3 The Irish education system in comparative aspect: what is known to date

A number of studies to date have examined educational systems in comparative aspect, but until more recently there had been a tendency for existing studies to focus on a small number of 'core' European countries, thus omitting Ireland. A particular example of this is the study by Maurice and Seller's (1979) on regimes of school-to-work transitions in France and Germany. However, more recently, studies have placed Ireland in comparative perspective. Work by Hannan et al (1994) explored the issues in developing a comparative data set on transitions in Ireland, Scotland and the Netherlands and revealed marked cross national differences in education and labour market outcomes among young people in the three countries. Smyth and Surridge (1996) compared Ireland and Scotland, highlighting the impact of different policy responses to unemployment on labour market outcomes and occupational allocation among young people in the 1980s. Other studies around this time included analyses of early school leaving in Ireland, the Netherlands and the UK (Hannan et al 1995) and a study of third level course content and occupational allocation in the Netherlands and Ireland (Borghans et al 1996).

Since then a number of other far reaching European or international studies have sought to devise typologies and explain differences in the outcomes of the transition to work across institutional contexts. These have included Müller and Shavits (1998) *From School to Work: A comparison study of educational qualifications and occupational destination*. Müller and Shavit classify the Irish educational system as one which 'offers primarily general education'. In their classification, Ireland exists as a system with little or no vocational specificity at secondary education, a high degree of *standardisation* (the degree to which the quality of education meets the same standards nationwide), and thus a very low degree of *stratification* (the extent and form of tracking at the secondary educational level) between academic and vocational tracks, and consequently less benefit accruing to specific vocational training in accessing skilled employment. While elements of their classification for

less stratified countries hold for Ireland – for example, tracking begins at a later age - they argue that the curricula of the tracks are somewhat similar and there is more inter-track mobility and consequently smaller differences among tracks in the odds of continuation to tertiary education, which is not entirely true of the Irish case, as will be shown in this dissertation. They argue that in systems with a low degree of standardisation, employment decisions are less likely to be based on education because credentials are more ambivalent signals. In their examination of the Irish case, Breen Hannan and O'Leary (1995) have demonstrated that in a system with a high degree of standardisation, that employers rely on success in school because this is tested according to nationally standardised procedures and thus workers credentials represent their respective rank in the job queue.

Hannan, Raffe and Smyth *Cross-National Research on School to Work Transitions: An Analytical Framework* (1996) focus on education–labour market linkages, and classify the Irish second level education system as a system with a lack of formal *institutional linkages* but a strong reliance of employers on educational outputs/qualifications as signals in recruitment decisions. Figure 3.1 shows the range of possible variations in institutional arrangements for educational provision and for linkages between education and the labour market in their classification. In terms of the relationship between standardisation and curricular differentiation, Ireland, like France and Scotland, occupy a highly standardised ET system with minimal linkages to the labour market. However, compared to the USA, they have very strong and reliable market signals of potential employees human capital characteristics.

Figure 3.1: A typology of ET systems and labour market linkages

	Degree of Standardisation of ET System	
	High	Low
	Degree of Differentiation (and Vocational/Occupational Specificity) of ET Systems	
School to Work Linkage	High ⟷ Low	High ⟷ Low
(a) Tightly Coupled ET/Employer Systems: Strong Linkage (Dual System)	Germany Austria Switzerland Denmark	
(b) Tightly Coupled ET/Employer Systems: Collinear Linkage	Netherlands	
(c) Loosely Coupled or Decoupled ET/Employer systems, but with strong market signals	England/Wales Scotland Italy France Portugal Finland Sweden **Ireland**	
(d) Loosely Coupled Systems, but with strong market signals and strong school placement function	Japan	
(e) De-Coupled ET/LM systems with weak market signals (from second level)		USA Canada

Source: Taken from Hannan, Raffe, Smyth 1996

The nature of the ET/LM linkages

According to Hannan et al. 1998, the nature of the relationship between ET and LM entry, or initial employment decisions, can vary substantially: from situations of almost complete isolation, or `decoupling', of the ET system from the LM system to one where both systems are highly interconnected/coupled. In their study, countries were categorized according to the following set of linkage dimensions:

- Strong and Direct Shared Inter-linkage

- Collinear Linkage
- No direct linkages, but strong labour market signals
- School placement function
- No direct linkage and weak market signals

(a) According to their typology, a system of **strong and direct shared inter-linkage** exists where employer engagement is high; that is, employers and schools or trainers (including on the job training) are directly linked (and sometimes legally governed/supported, with joint financial responsibility) in the provision and delivery of training for young people. In such a scenario, both employers and education/training providers jointly agree on education/training requirements for specified `occupations' in national economic contexts in which the youth labour market is highly `occupationalised' (and generally highly segmented). They identify this pattern as being particularly evident in the German-speaking countries, and Denmark. In these cases both strong `*content congruence*' and `*level congruence'* takes place between the output/qualifications from schools and intakes to the labour market.

(b) A **collinear linkage** occurs where a substantial occupational labour market exists, where training for *specific* 'occupational positions' takes place in second level schools and colleges, but where there is little or no joint delivery of training for young people moving from school into the labour force. In such a scenario, education and training requirements are specified and clearly known to the schools. The dominant country in this typology is the Netherlands, which they argue has a considerable number of occupations which require that specified second and third level courses/qualifications be taken before entry. So there is a substantial occupational labour market served by a substantial and (early) age-defined occupational ET programme provided on a full-time basis. While in most countries there is a range of professional and higher technical positions (such as medicine, law and engineering; and more recently in computer science), where specified, long cycle, educational/professional training programmes at third level are required (sometimes statutorily, sometimes by professional bodies, and sometimes by

employers), in these systems, there is strong, though less pronounced, content and level congruence between the output/certification of schools/colleges and labour market entry. Such congruencies are covered by a combination of state regulations, professional/technical body regulations; and in countries like the Netherlands this is linked to an extensive 'occupationalised' labour market governed by regulations.

(c) With the exception of the American and Canadian second level systems, most of the English-speaking countries fall into the category of **no direct linkage** as does France and most of the Scandinavian countries. In these systems, market signals from school are deemed to be strong, reliable and standardised. While employers are not directly involved in schooling or training, school 'outputs' (certifications), and 'signals' about the learned and innate competencies of graduates, are publicly certified and used actively by employers in making employment decisions. Education systems here are highly standardised but tend to be less differentiated in terms of school type or curricular tracking. There is a high degree of 'level congruence' between educational outputs and labour market outcomes, but little regulated 'content congruence'. In addition to 'levels', examination grades may be widely used in access to employment (see Breen, Hannan and O'Leary, 1995).

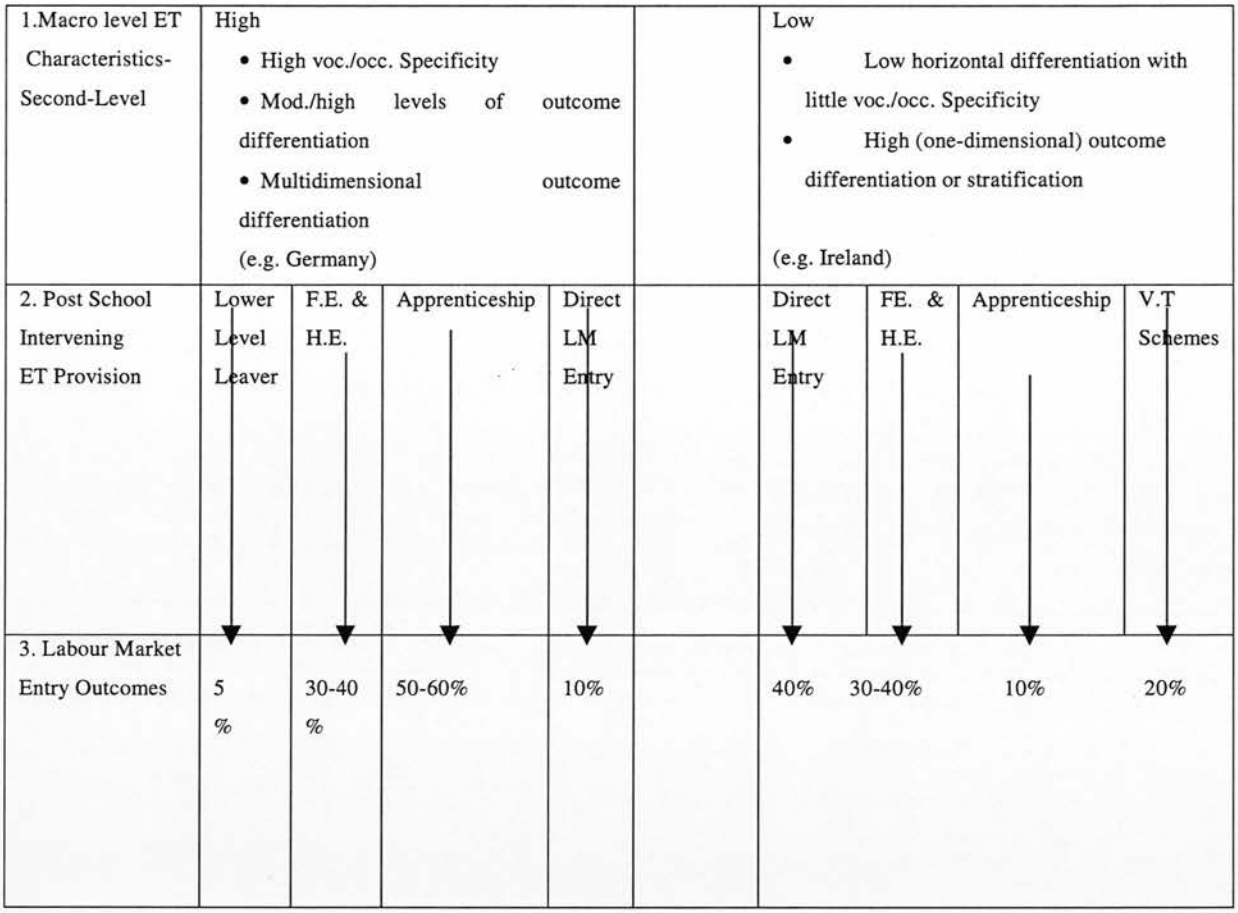
(d) Making a distinction from the above, Japan is classified as a system which exerts a **school placement function**. In these systems, besides open market 'reading' and matching of educational outputs to job offers, employers may be directly linked to schools by the school guidance service acting as job placement officers in the employment system. This arrangement may be supported by, and officially acting in place of the state employment service, as in Japan.

(e) The classification sees the USA as having **no direct linkage and weak market signals**. There is no standardization of the educational system at first or second level. It tends to be comprehensive and relatively undifferentiated at second level. There also tends to be limited post-school training of those high school graduates or dropouts who do not go on to third level, compared to Germany. On the other hand, a much higher proportion of the cohort both complete upper second level education

and go on to third level (or other further) education in the USA and Canada; and the third level systems there appear to be much more open and flexible - both in terms of part-time participation, as well as 'return' to full-time education of adult workers who have been employed for a number of years than is true for Germany, the UK or for Japan.

The second approach outlined the 'typical trajectories' that individuals in different ET and LM systems might take through the educational/training system into the labour market (See Figure 3.2). At one extreme, there is the German dual system, which institutionally constructs, supports and potentially constrains individual trajectories. At the other end of the continuum there is the 'open market model' (perhaps typified by Ireland) where there are much fewer institutionalised connections between education, training and the labour market, and potentially more open competition between those with different levels and types of educational qualification for the same occupational positions – i.e., including less segmentation with LM. The labour market in the former case is highly 'occupationalised' and segmentation and in the latter is minimally so.

Figure 3.2 Two ideal type models of school-to-work transitions



Source: Taken from Hannan, Raffe, Smyth 1996

Two further studies that place Ireland in comparative perspective have been completed more recently and are of interest to this study. Mills and Blossfeld (2005) have recently considered how globalisation impacts the transition to adulthood in 14 countries and place emphasis on the manner that countries combine theoretical learning with practical work experience and its implications for early labour market transitions. In the wider youth transitions literature, the characteristics of transition systems as well as their effects on transitions have been dominant themes of recent European comparative research (Canny, 2001, Hannan et al., 1997, Heinz, 1999, Müller and Gangl, 2003, Müller and Shavit, 1998, Ryan et al., 1991) and researchers have explained transition patterns in terms of characteristics of labour markets (Ryan et al., 1991) and in terms of characteristics of education systems (Allmendinger, 1989, Müller & Shavit, 1998; Hannan et al., 1996) and linkages between education

and the labour market (Hannan et al, 1996). More recently Iannelli and Raffe (2000,2006) consider the transition systems of the Netherlands, Scotland, Ireland and Sweden, paying particular attention to the relationship between vocational upper secondary education and the transition from school. According to Iannelli and Raffe (2006) the concept of a transition system refers to 'the relatively enduring features of a country's institutional and structural arrangements which shape young people's transitions' (Iannelli & Raffe, 2006:2). Drawing on Maurice et al.'s notion of societal logics and much of the research summarised above, they construct two ideal types of transition systems of employment logic and educational logic, respectively. They argue that Ireland now lies in an intermediate place between the 'education and employment logic'.

3.4. Reinforcement of the Vocational Stream at Upper Second Level

More recently however, Ireland has followed a number of international and European policy trends which have been aimed towards providing flexibility and diversity in options available to young people (OECD, 2002). In the US, discourse around reinforcement of the vocational stream at upper second level (ISCED Level 3) relates to the *'new Vocationalism'* (Kantor and Tyack 1982) while in Europe discourses relate to initial vocational education and training (IVET) and the provision of pre-vocational and school based vocational education, despite the absence of any hard definition of IVET in many countries. In Europe, these policy trends have included a broadening of vocational programmes and qualifications, the creation of links between general and vocational education, the combination of work-based learning with continuing school education (e.g. vocational options within upper secondary education, more general education content within vocational education and the modularisation of the general and vocational training courses) the creation of pathways from secondary vocational education into tertiary education, and the development of a framework system (OECD 2000).

The revival or development of vocational courses at upper secondary level is also evident in Australia, Canada and the United States (despite the absence of comprehensive reforms), however Leney and Green (2005) argue that the role of VET in upper secondary education programmes is more pronounced in many

European systems than in the US, Canada or Japan. In Japan, the authorities have initiated a number of reforms to further develop vocational education in secondary schools and to generally strengthen links between the education system and the labour market. Policy has been aimed at strengthening pathways through initial education and into work and providing experience in work settings while in education.

Table 3.3 outlines that in the majority of the OECD countries a larger number of upper secondary students attend vocational education institutions or participate in apprenticeship than general education institutions. In spite of increased differentiation at upper senior cycle, Table 3.3 outlines that the Irish system remains quite obviously distinct from the highly differentiated systems of vocational education in Germany and the Netherlands, but similar to a number of countries with vocational or pre-vocational elements in the curriculum at upper second level. Further breakdown is offered in Table A1 and Table A2 in the Appendix.

Table 3.1: Classification of Pathway countries

Apprenticeship Countries	**Mixed Pathway Countries**	**School based Vocational Countries**	**General Education Countries**
50% + in apprenticeship type arrangements	20-50 % in apprenticeships, 50% or less in general education	50% + in General Education Programmes, 20% or less in Apprenticeships or other	50% + in General Education Programmes
Germany Switzerland	Austria Denmark The Netherlands Norway	Belgium The Czech Republic Finland France Hungary Italy Poland Sweden United Kingdom	Australia Canada Greece Ireland Japan Korea New Zealand Portugal Spain United States

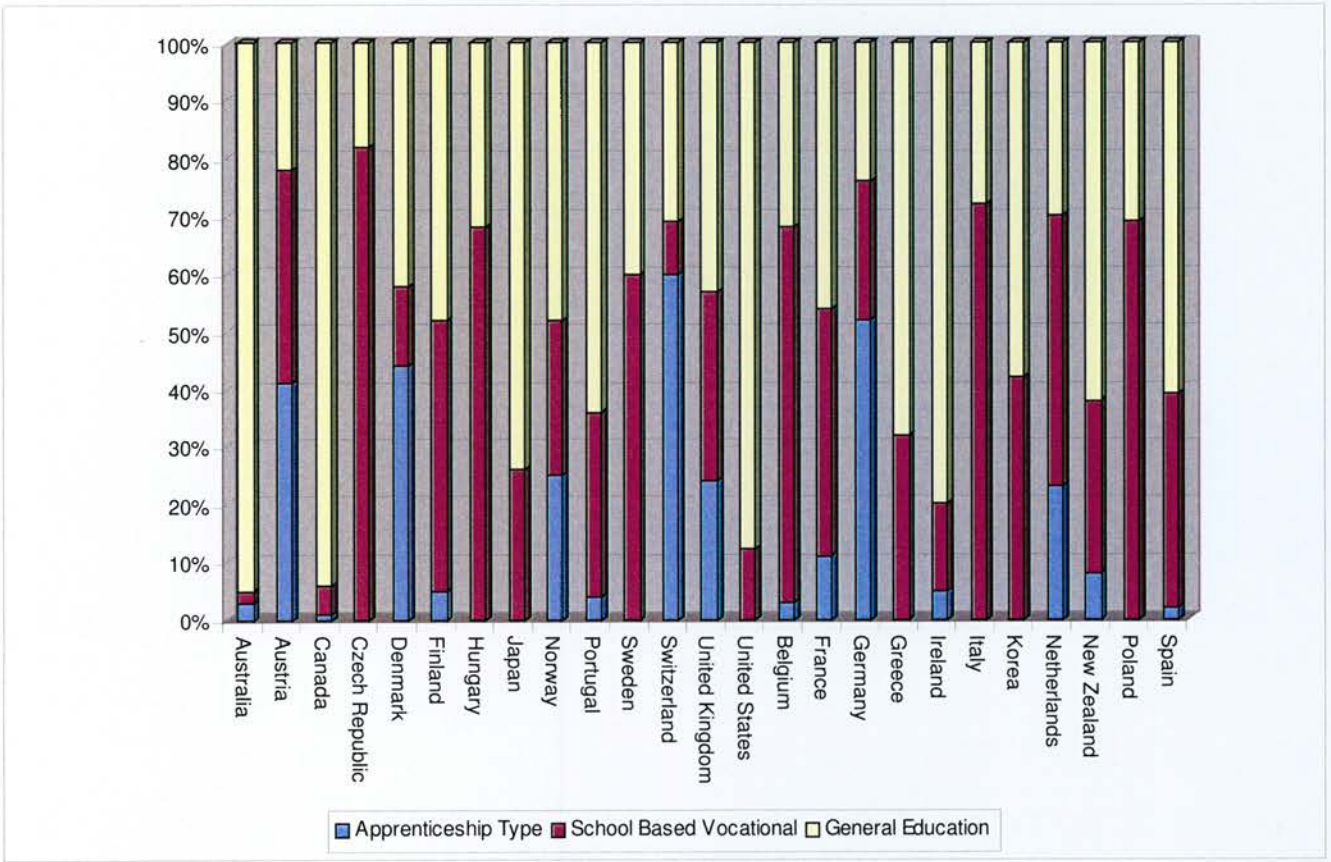
Source: OECD (2000)

It has been argued that ensuring a supply of good quality vocational programmes at ISCED level 3 is an effective measure to foster high levels of graduation from the upper secondary level (Leney and Green 2005). Leney and Green hold that most European countries that have low levels of early school drop out also have high levels

of participation in VET pathways: sixteen out of the 19 countries that have 50 per cent or more students in vocational programmes at ISCED 3 level (including school based and apprenticeship) have low levels of early school leavers. The exceptions are Bulgaria, Romania and Italy who have high levels of students in IVET (a preponderance of pre-vocational courses in the case of Italy) and high levels of early school leaving (see Figure 3.1 below).

In terms of diversity in options available to young people within the curriculum, Figures A1, A2 and A3 in the Appendix indicate that a high proportion of schools in the Republic of Ireland offer their students access to information relating to the world of world.

Figure 3.3: Percentage of Second Level Students in Apprenticeship, School Based Vocational or General Education, various countries and educational systems



Source: Leney et al., 200

While a feature of education systems at upper second level; school organised work experience varies widely across systems in relation to the age at which young people can participate, and there is also considerable variation in terms of how it is integrated into the curriculum, in terms of its purpose, duration, organisation but also in terms of the links between learning in school and learning in the workplaces (OECD 2000). School organised work experience is a common feature at upper secondary education and is generally designed for students beyond the age of compulsory schooling (although in Germany, England, Wales and Scotland work experience is part of the curriculum in compulsory education). Some of the more common forms of school organised work experience include co-operative education (USA, Canada), unpaid structured work placements (Finland, Austria, Sweden, Australia, Ireland) and other forms of work shadowing and work experience (see Table A3 in Appendix).

Provision of school organised work experiences in Ireland is more akin to that provided in the educational systems of Australia, Canada and the United States. For example, in the United States, the 1984 federal school to work opportunities act encouraged greater used of work-based learning for students[25]. These policy developments stem from a belief that schooling will provide more effective preparation for work if work itself is part of the curriculum in a context of lifelong learning. In Europe, the EU Fourth Framework Targeted Socio-Economic Research focused on work experience as an education and training strategy. McKenna and O'Maolmhuire (2000) report that the project analysed how students, whether engaged in general or vocational education and training programmes learn and develop through work experience. In their study they report that for Leaving Certificate Applied students, work experience is useful for educating and engaging disaffected and low achieving students in taking their studies more seriously.

Guile and Griffiths (2000) reassess the relationship between education and work and the role of work experience in academic and vocational programmes in a context of globalisation and life-long learning. Because of the diversity in practices relating to

[25] It focused on integration of school based and work based learning, combining academic and vocational curriculum and linking of secondary and post secondary education.

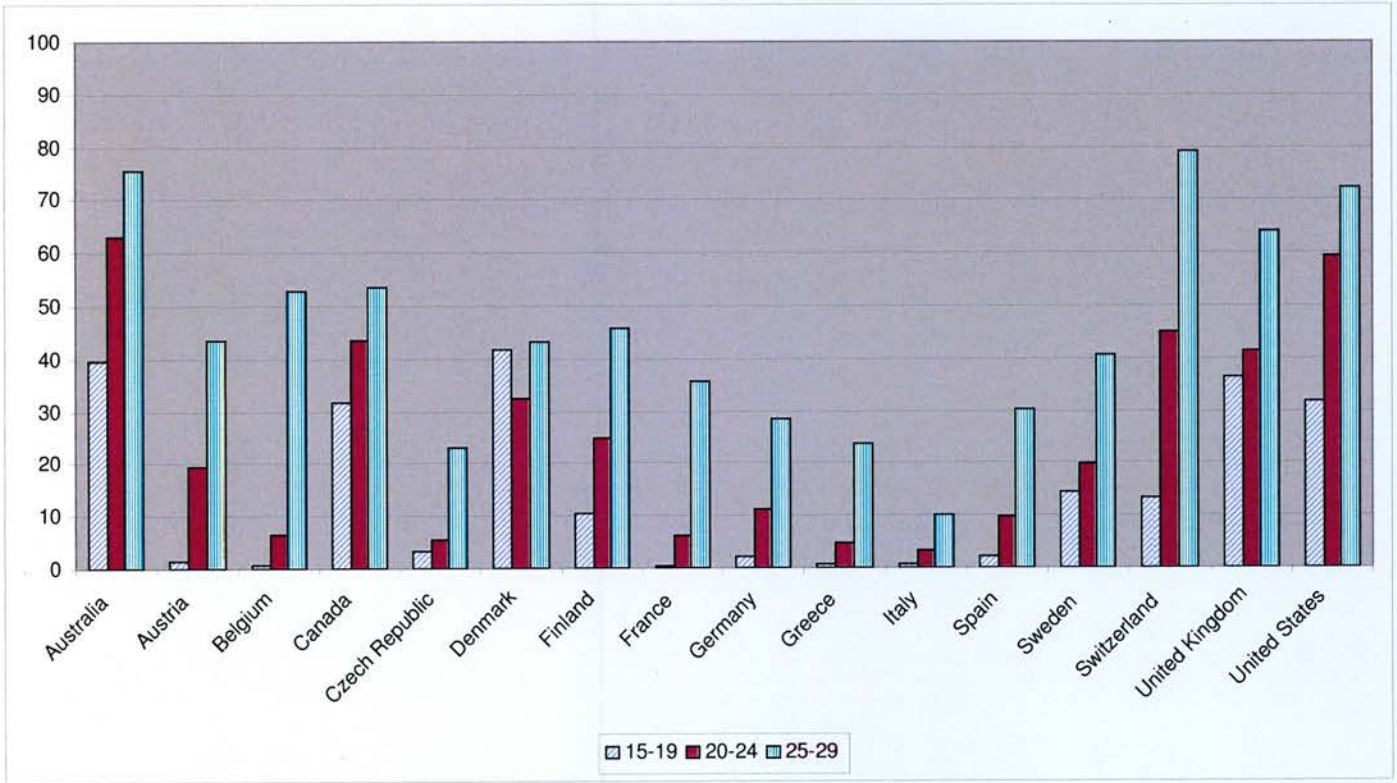
school organised work experiences, they stress the importance of placing these types of part time jobs in their contexts in order to fully understand their impact on education and labour market outcomes. According to Leney et al., (2003) school based VET systems with work placements are intended to enable learners to gain appropriate knowledge, competence and skills in the workplace. However, individual country reports indicated that by and large these work placements are often considered to be too short, not systematically integrated with classroom learning, accidental and often with insufficient pedagogy.

3.5. Levels of Uptake in Part Time Jobs

> *'Compared to the mid 1980s, young people are now more likely to combine their studies with work during the transition phases. This is partly the result of participation in apprenticeship and the like, but also the result of students having part time and summer jobs. Education systems are increasingly encouraging the blurring between the classroom and the workplace through school organised work experience programmes such as co-operative education. This means that for many young people the transition from being a student is now less sharp and sudden than it once was'* (OECD, 2000: 12).

Internationally, OECD figures indicate that the incidence of part time job holding by school going youth varies widely. Figure 3.4 below indicates that combining education and work obtained through part time job holding is most common among 15-19 year olds in Denmark, Australia, the United Kingdom, the United States and Canada. In these counties, Labour Force Survey data indicates that between 30 and 40 per cent of teenage students combine their studies with work. Based on the available data, it would seem that part time job holding is least common in Austria, Belgium, France, Greece, Italy and Spain. While OECD has published some statistics on the prevalence of part time employment among students as part of its investigation into the transition from initial education into working life, data exist only for those countries for whom were included in the Thematic Review.

Figure 3.4: Percentage of Students in Employment, 1996



Note: The data excludes those in apprenticeship type programmes, and figures are based on Labour Force Survey first quarter data. Source: OECD (2000:17)

Part time employment offers young people a type of work experience that is not formally organised either by industry or educational institutions. While generally, part time jobs have no connection to students educational programme (OECD 2000), qualitative research undertaken in the Irish context indicates that young people often use their part time job for their school organised work experience or vice versa (see Smyth et al., 2004). However, it is difficult to estimate whether the prevalence of part time employment, particularly among students of second or tertiary level education, can be linked to the wider institutional and structural arrangements of a country because of data limitations.

3.6 Overview of Combinations of early work experiences

Figure 3.2 has illustrated the percentage of young people for various age groups in education and employment in different institutional contexts. It would seem that opportunities to engage in early work experiences, particularly in part time job holding before leaving school differs between OECD countries according to the set up of their education and training systems. This link has been identified in terms of 'double status positions' among young people in European countries. Wolbers (2003) using data from the European Union Labour Force Survey (EULFS) found that the occurrence of double status positions differs between European countries according to their labour market structure and the organisation and setup of their education and training systems. Despite hypothesising that *the occurrence of young people combining education and employment in ILM countries will be relatively low, while it will be high in OLM and almost invisible in Southern European countries* a distinction could not be made between 'working students' in ILM and OLM countries.

Figure 3.4 immediately reveals that there is a great deal of cross national variation with regard to education and employment activities of young people that can be linked systematically with the institutional context. Considering first the ILM countries

(UK, Ireland, France, Belgium) while the percentage of students in employment was high across all age groups in the UK was high, this was the case only for the 25-29

year groups in France and Belgium. OLM countries (Denmark, Germany, Austria and the Netherlands) were then characterised by high proportions of young people in a double status position based on the assumption that in most of these countries, the combination of learning and working is institutionalised in the apprenticeship system. In comparison, Figure 3.4 indicates that the percentage of students in employment at all age groups is high in Denmark, but not as high as one may suspect in Austria or Germany. In terms of Southern European countries (Italy, Spain, Portugal and Greece), where we suppose that double status positions hardly occur, this was particularly true for all age groups in Italy, and younger age groups in Spain and Greece.

In order to examine whether different types of early work experiences are undertaken in some contexts rather than others, a number of countries were examined according the rates of uptake of early work experiences and according to a range of institutional arrangements relating to the education and labour market. These included the type of education system, the vocational specificity of second level education, the national standardisation of education, the stratification of secondary education, rates of part time job holding, the political economy and whether the country was an ILM or OLM country (see Table A4 in Appendix).

Contrary to the expectation that a distinction could not be made between ILM and OLM countries in terms of part time job holding among 15-19 year olds, it would seem that part time job holding is high in countries where education is not occupationally specific, that is, in ILM countries. These countries generally provide mostly general education (internal labour market contexts) where jobs are relatively easy to access because of the entry-port employment structure. On the other hand, in OLM countries (occupational labour market contexts) education is generally more occupationally specific and access to employment is more restrictive as it is based on skill levels.

Furthermore, the political economy appears to be of importance, as it would seem that rates of part time job holding are low in Mediterranean and co-ordinated market economies (with the exception of Denmark) and high in liberal market

economies. In liberal market economies, vocational training is generally offered by institutions offering formal education that focuses on general skills (Hall and Soskice 2001). It would seem that levels of part time job holding are high in countries where employment legislation is weaker (such as Ireland, UK) therefore, making it easier for young people to enter the labour market before completing second level education. While more detailed analyses of this typology should be considered rather than the descriptive approach presented here, it would seem that part time jobs are more available in 'flexible' labour markets which would provide more opportunities for young people to acquire jobs while still in school. Finally, it would seem that school organised work experience represents a substitute for the function of apprenticeships in smoothing the transition to work.

Chapter 4: Data & Methodology

4.1. Introduction

Empirically, this dissertation is specifically concerned with young people's participation in work experiences undertaken before leaving second level education, gained through part time jobs and/or school organised work experiences; and the influence of those work experiences on subsequent experiences in the education system and in the youth labour market. A key aim of the dissertation is to consider the determinants of individual behaviour, represented by individuals 'work' decisions. In doing so, young people are characterised according to ascriptive factors such as gender and family socio-economic background factors such parental social class background, but also according to local area and school level characteristics. This means that the level of analysis will be at the micro individual level, but the influence of contextual factors such as family background, characteristics of the geographic location in which they live and the school they attended will also be considered.

Secondary data sources are used to address the research questions outlined in Chapter 1, and so a quantitative approach was used to analyse the data. By applying different statistical techniques of analysis and different statistical models, the aim was to answer the research questions formulated in Chapter 1, with the theoretical orientations presented in Chapter 2 guiding the empirical analyses. This chapter sets out to explain how the research design was devised and how decisions regarding the data and methodology were informed. In doing so, section 4.2 covers the research design that underpins the empirical analyses and outlines the rationale for using a quantitative approach. The remaining sections offer a detailed explanation of the data and statistical methods used in the empirical chapters as well as a discussion of the primary methodological issues that arose in the course of the study. Specifically, section 4.3 presents an overview of the secondary data sources used and presents some of the issues relating to the use of the data as well as outlining the structure of the data. Section 4.4 deals with the statistical techniques applied in the analyses, and section 4.5 describes

some of the methodological issues encountered, specifically with regard to the clustering of the data and issues of selection bias.

4.2. Research Design

At the beginning of any research undertaking, there is of course a question about how best to answer the research questions (Hakim 1987). The choice of research design must of course be appropriate to the subject under investigation (Bechhofer and Paterson 2003) and in this dissertation, as outlined in Chapter 1, detailed research questions guide the analyses of the relationship between early work experiences and subsequent education and labour market outcomes. Furthermore, the research design allows for an evaluation of the effectiveness of educational policies aimed at young people in the Irish Republic. As outlined in previous chapters, this dissertation adds to the current body of knowledge surrounding early work experiences. Uniquely, it currently stands as the only Irish study that considers participation in the different types of work that young people engage with before leaving school - part time jobs and school organised work experiences - while considering other less explored issues in the Irish context, including an examination of the characteristics of young people in different programmes at senior cycle, and differential outcomes according to the type of educational programme pursued. Furthermore, these issues are explored within their natural hierarchical data structure, that is, students within schools. In addition, issues concerning unobserved heterogeneity, endogenity, sample selection bias and confounding variables are also taken into account.

The first empirical chapter (Chapter 5) begins by providing an overview of the Irish education system, placing emphasis on current provision of curriculum differentiation in the senior cycle curriculum. This first set of analyses considers the determinants of participating in the different curricula on offer in senior cycle in a multilevel framework. In doing so, it addresses potential inequalities in a differentiated curriculum by investigating participation according to individual and school level characteristics. This approach is taken to consider whether certain types of students are

more likely to choose the different curricula on offer in the Irish educational system at senior cycle. In this chapter, based on previous research, I expect to find a strong effect of social origins on young peoples' participation with respect to differentiation at senior cycle.

The second set of empirical analyses (Chapter 6) devises a typology of early work experiences, and offers a description of the early work experiences of a cohort of school leavers using the SLS03, paying particular attention to the prevalence and intensity of young people's early work experiences, but also to the *work histories* of school leavers, particularly senior cycle school leavers. It then deals with the influence of individual, family socio-economic background and school level and local area level characteristics on the likelihood of participating in different types of early work experience. Based on the literature to date, I expect to find a selection effect in terms of part time jobholders. That is, I expect to find that school leavers with more advantaged characteristics are more likely to hold part time jobs.

The third and final set of empirical analyses (Chapters 7 and 8) address the influence of early work experiences before leaving school on education and labour market outcomes and are guided by the theories outlined in Chapter 1, as well as discussion of the empirical literature in each of these chapters. The analyses in these two chapters aim to come to a conclusion as to whether early work experiences represent an advantage or a disadvantage for school leavers in relation to their subsequent outcomes.

Rationale for using a Quantitative Approach

The rationale for using a purely quantitative approach arose from practical constraints in using a mixed methods approach. There were two elements of the study at the research design phase that did not materialise. At the design stage of the study, I proposed to make use of students' school organised work experience diaries. While I was satisfied with the adequacy of the SLS03 to explore the research questions being addressed, I was also interested in exploring young people's perceptions of their school organised work experiences, particularly in relation to the skills they perceived to have acquired during the work experience period. At the research design phase, I contacted the Department of

Education and Science in the Republic of Ireland[26] to inquire into the possibility of gaining access to the work experience diaries of Leaving Certificate Applied and Leaving Certificate Vocational Programme students. However, access was denied on the grounds of privacy. Because students complete work experience diaries that are considered for examination, access to examination material cannot be made available to the public without individual consent. The second issue was in relation to an alternative qualitative element. However, given that I was studying in Edinburgh and had no access to research costs, qualitative interviews or a case study was not feasible. Instead, it was considered more appropriate to use existing quantitative data.

Because of these constraints, it was decided that the most pressing research questions could be answered using a quantitative approach. The next issue in the research design phase then moved to a consideration of the availability of data that could offer information on both participation in and outcomes of different types of early work experiences, but also a consideration of the methodological instruments that could best meet the purpose of the research questions being addressed.

Availability of Data relating to early work experiences

Concern over developmental consequences of early work experiences before leaving school, particularly part time job holding, stems partly from the belief that this type of activity among young people has risen rapidly in recent years, both for university students and second level students, in the absence of any hard empirical evidence. While there is no disagreement that current uptake levels are high among young people in second level education, Irish studies have generally failed to document a long-term trend in part time work activities, that is, a trend since the 1940s or 1950s, among students thus making it difficult to prove or disprove this statement. However, the observation that part time work activities among students has increased over this time period has been reported by studies in other institutional contexts (see for example Rhum 1997 in the US and Hakim 1998 in the UK.

[26] For more information see www.education.ie

It is difficult to estimate the percentage of young people who mix part time work with their studies in school and/or obtain a true picture of student involvement in part time jobs and early work experiences due to the lack of data collection pertaining to the economic activities of this age cohort. Intensifying the difficulty of assessing the national prevalence of teenage labour force participation is the way in which economic activity is addressed in national surveys. I now give examples from four national surveys. The Census of Population asks respondents about their present status, thus identifying young people attending second level education, but when it comes to employment status, young people attending second level education are categorised in the survey as 'not applicable'. Similarly the Household Budget Survey (HBS) asks only about the economic situation of the head of household – that is, it collects information at household level and it is not possible to isolate the educational and work status characteristics of individual members of the household. The Labour Force Survey data from Eirestat contains information for those whose primary status is the ILO definition of 'employment'[27] and so, not necessarily those in education and employment. While the Quarterly National Household Survey (QNHS) asks people about *both* their principal economic status (student) and their ILO Economic Status, it is open to interpretation based on how the data is collected. Furthermore, for young people under the age of 15, ILO status is stated as 'not applicable'.

The issue of the measurement of double status positions has arisen more recently in the sociological literature. Hakim (1998) argues that with young people combining education and employment, our theoretical and conceptual frameworks must also be amended and developed in order to fully address the fact that people may have multiple activities. In the UK, technical improvements and falling data processing costs have meant that double coding of the economic activity question has become feasible, and double coding of the economic activity was carried out in the 1991 Census. In such a

[27] Employment is defined according to the ILO definition which outlines that 'a person is deemed in employment if they worked in the week before the survey for one hour or more for payment or profit, including work on the family farm or business and all persons who had a job but who were not at work because of illness or holidays etc in the week'.

scenario, double coding allows people to be classified as having two concomitant statuses instead of identifying a single overriding status among multiple codes. For example, young people in full time education who also have a part time job are counted under both of these statuses, instead of solely as students. Hakim (1998) makes the point that this method of data collection for measuring double status positions is not widespread, which is surprising given that developments in IT provide a technical solution to constraints such as single coding. Because of these reasons it is difficult to estimate the percentage of young people who mix part time work with their studies in school and to get a true picture of the nature of student involvement in job and work experiences over time.

At the research design stage, a number of datasets were examined for their suitability in examining participation in and the outcomes of early work experiences before leaving school, and the Irish School Leavers Survey (SLS) was deemed the most appropriate. Other Irish data sources were considered in the search, including the Living in Ireland Survey and the Household Budget Survey, but also European data sources such as The Scottish School Leaver Survey, Youth Cohort Study of England and Wales, The Young Life and Times Survey, The Status Zero Survey (Northern Ireland), the Young Persons Survey: The British Youth Panel (BHPS) and the Eurobarometer.

The Irish School Leavers Survey (SLS), particularly the SLS03 was selected based on its suitability for a number of reasons. Firstly, the SLS03 offered information on both part time jobs and school organised work experiences undertaken before leaving school. Secondly, the survey is a representative sample of school leavers from all levels of the post-primary system, ranging from those who left school without completing any public examinations to those who completed the established Leaving Certificate, meaning that levels of educational attainment and curricular tracks pursued at senior cycle can be identified. Thirdly, in addition to differential education levels, we can also distinguish different types of work that second level students participate in as well as the different educational contexts in which they are placed.

4.3. Overview of Data Sources and Issues relating to the data

Three types of data are used in this research;

(a) The School Leaver Survey 2003

(b) National level data sources

(c) International level data sources

The School Leaver Survey 2003

The empirical analyses carried out in the dissertation are based on a survey carried out in the Irish Republic by the Economic and Social Research Institute (ESRI)[28] on behalf of the Department of Education and Science (DES). This cross sectional survey has been carried out every year since 1980 (with the exception of 1999 and 2000) and so is an established School Leaver Survey. The data used in this survey are drawn from one year of the School Leaver Survey. The unit of analysis is an individual school leaver, defined a student who left second level education, irrespective of completion, during the academic year 2000/01, that is, between September 01st 2000 and 31st August 2001. The survey captures a representative sample of school leavers who left the second level education system at any stage during the academic year 2000-2001, thus capturing young people who leave the education system before completing second level education, but also those who complete second level education.

The dissertation uses this year of data to examine the influence of early work experiences undertaken before leaving school on short-term education and labour market outcomes. A single year of data has been used for two reasons. Firstly, the SLS03 was only the second year that questions were asked about both early work experiences and participation in the LCA and LCVP. This year of data was deemed preferable to obtain reliable data as the survey had been through the pilot of the previous year in asking these questions. Secondly, the period 2000-2001 when school leavers left school represents a time of favourable labour market conditions, and so was an interesting time point to consider youth transitions. Despite the absence of other survey years being used, the

[28] For more information see www.esri.ie

legacy of the past has been used to inform the modeling. The literature review in Chapters 2 and Chapter 5 offer literature on which to guide the analyses. For example, research reviewed in Chapter 2 identifies school type and socio-economic background as key determinants of pursuing a vocational rather than an academic route. This leads us to question in the current investigation whether pre-vocational and vocational programmes currently on offer in senior cycle continue to be structured by school type and socio-economic background. It is in ways such as these that the legacy of the past has been used to inform the modeling.

The sampling frame of the survey is conducted by means of a two stage sampling procedure. For each survey, a sample of school leavers is drawn at random from lists of school leavers supplied by a sample of 200 schools, (roughly a quarter of all post-primary schools) stratified by school type, curricular provision at senior cycle, school size, school sex mix and geographic region. The consequences of the data structure will be discussed in Section 4.5 below.

Data was collected from school leavers using a structured questionnaire administered by fully trained interviewers. All surveys were completed between January 2003 and October 2003, but the bulk of the data collection took place in the Spring (February, March and April and May) of 2003, and the data was entered into SPSS between June and October 2003 by the survey team at the ESRI[29]. At the time of the interview the majority of respondents had been out of school for 20 months. Sample sizes for this cohort are given in Table 4.1 below. In terms of sampling design, the School Leaver Survey is an observational study of a cohort of school leavers and their destinations. The sampling design then is prospective. A copy of the survey can be found in Appendix B.

[29] These are the dates of data collection recorded in the survey. I made contact with Dr Dorothy Watson in the survey unit at ESRI to confirm that these were the actual survey collection dates. Dr Watson confirmed that the dates outlined above were in fact the actual data collection dates.

Table 4.1 Sample size of school leavers from the 2003 survey

Year of Survey	Cohort	Sample N	Population of school leavers	Sample size as percentage of population
2003	2000/01	2332	71247	5.5

Data Quality

As a secondary data analyst of the Irish school leavers' survey, I was sometimes compromised by the quality of the data. For example, there has been no coding guide available from the Economic and Social Research Institute for the school leaver survey since the 1996 survey was conducted. Other issues have included inconsistencies in coding. There also seem to be sampling issues, given that in some schools it would seem that mature students are perhaps more willing to complete a survey than their younger counterparts (or perhaps the birth date of the interviewer has been recoded rather than the birth date of the respondent).

Harmonising the Data

Harmonising the data presented quite a large logistical problem. It particularly became an issue in relation to the questions '*what was the last certificate examination you sat for before leaving school*' and '*at what stage of education did you leave*'. In all 115 cases had to be individually checked in order to achieve a 'clean' dataset. This was likely due to coder error and/or respondent interpretation of the question being asked. Coding errors included re-coding those who had given the results of their established leaving certificate as 'left during leaving certificate' instead of 'completed established leaving certificate'. These errors were subsequently rectified by comparing the date when the school leaver sat their last certificate examination, with the date the school leaver left school; and a syntax file in SPSS was then devised to track any changes that were made.

In addition, school leavers were asked to name the last certificate examination they completed before leaving school and the subjects taken for this examination

(excluding PLCs). The interpretation of different programmes on offer at upper senior cycle is evidently an issue with coders, perhaps reflecting the overall absence of knowledge regarding these programmes in general. It was common to come across a case that was coded as having completed the Leaving Certificate Applied but also completed the Leaving Certificate Vocational Programme. As a result of inconsistencies, such cases had to be deleted when it was not possible to crosscheck them with other variables. During the harmonisation process it was also evident that surveys that were filled in by parents in particular were privy to this interpretation problem. Furthermore, date information was often missing, as was detailed examination information in terms of subjects and levels taken, thus making it quite difficult to differentiate between programmes and to measure examination performance. Because of these issues, and the omission of school leavers aged over 25, in all 28 cases were deleted from the dataset, thus resulting in the 2304 cases shown in Table 4.3.

Characteristics of School Leavers

Information pertaining to school leavers in 2000/01 came from 2304 (n=2332, weighted n=70626) school leavers in 232 schools. The schools consisted of 917 secondary schools, 365 community/comprehensive schools and 1051 vocational schools. The questionnaires were completed by the individual school leaver for 67 per cent of the sample[30], and the remainder were completed by the school leavers' parents, while a further 7 per cent were completed by 'others' which generally accounted for brothers, sisters, uncles and other family relatives. School leavers were born between October 1940 and November 1989, thus, when the survey was being conducted, school leavers were aged between 14 and 63, with the average age being 19.98. For the purposes of representativeness, the sample was reduced to those aged between 12 and 25.

The data includes information on the gender of the respondent. In addition to questions about the stage of leaving school and their family background (in relation to

[30] While not shown in the analyses here, a variable was constructed to identify whether a school leaver had completed the survey individually or not. When treated in a missing value analysis, it was evident that the data was missing at random, and this particularly evident in relation to wages data. Furthermore, this variable was regularly added to the models shown in the dissertation, but did not reach significance in any of the models.

parental social class, parental employment situation, parental education, and family structure), students were asked about their early work experiences – both in part time jobs and school organised work experience - in relation to the number of days or hours spent working, the nature of the business of the employer and the helpfulness of the early work experience in deciding what to do after school. Descriptive characteristics of the sample of school leavers' aged 12-25 are outlined in Table 4.2.

Table 4.2: Characteristics of School Leavers

Variable	Percentage	Unweighted N	Weighted N
Total Sample	100.00	2304	70626
Gender			
Male	54.4	1255	35106
Female	45.5	1049	35519
Stage left school			
Before completing Junior Certificate	11.0	254	2129
Having completed Junior Certificate	16.2	373	4114
During Transition Year	2.0	46	537
Having completed Transition Year	1.3	30	342
During Leaving Certificate Applied	3.9	90	2302
During Leaving Certificate Vocational	1.0	24	610
During Established Leaving Certificate	3.4	79	1942
Completed Leaving Certificate Applied	7.9	182	2301
Completed Leaving Certificate Vocational	10.0	230	11119
Completed Established Leaving Certificate	43.2	996	45230
Parental social class background			
Higher Professional	11.7	269	10587
Lower Professional	18.7	431	15043
Non Manual	28.5	656	19222
Skilled Manual	19.8	456	12681
Semi-skilled Manual	8.1	187	4987
Unskilled Manual	3.2	74	17620
Farmers Unspecified	3.4	78	2869
Unknown/unemployed/economically inactive	6.6	153	3475
Highest level of combined parental education			
Primary Education or Less	23.3	535	12363
Junior Certificate	26.0	600	17150
Leaving Certificate	25.3	584	20451
Diploma or Higher	18.1	416	16295
Unknown	7.3	169	4367
Household employment situation (combined parents)			
Full household employment	45.8	1055	34674
Exposed to household unemployment	54.2	1249	35951
Number of parents present in household			
Single parent household	8.6	198	5372
Both parents present	91.4	2106	65253
School type attended			
Secondary school	39.5	909	31749
Community/Comprehensive school	15.8	363	10228
Vocational school	44.8	1032	28649

Advantages of using the SLS03

The focus of this study is the early work experiences undertaken by young people during second level education, and so the SLS provides a valuable data source for this work. An advantage of the SLS is its sampling frame of school leavers' who have left school over the course of an academic year, thus capturing both 'successes' and those who are most disadvantaged in the education system. Because different work experiences depend upon the stage of school leaving, the SLS data was divided into two sub samples in order to compare like with like in terms of employment behaviour. Information relating to individual (including household) level and school level variables were obtained directly from the SLS03. To make inferences about Irish school leavers, each case in the analysis is weighted to represent a certain number of school leavers in the population. The 2304 unweighted cases thus represent a population of 70, 626. Furthermore, key information is collected in relation to part time job holding and participation in school organised work experiences.

Disadvantages of using the SLS03

A key feature of the dissertation is that it has relied heavily on retrospective data, particularly in relation to the data gathered pertaining to the participation and timing of part time jobs and school organised work experiences. While retrospective data collection has the advantages of lower cost and ease of sampling, it relies heavily on respondents recalling events that occurred quite some time ago. Because of the nature of retrospective data collection, there may some recall error in terms of the respondent's responses in the questionnaire.

Other data sources used

Other data sources that were used in the dissertation were;

(a) Census of Population 2002

(b) Labour Force Survey

(c) Quarterly National Household Survey

(d) Data derived from OECD reports

Census data & Deprivation Indices

The Census of Population 2002 was used to develop the spatial dimension of the study. Spatial level information was obtained by matching the local authority area in which the young person lived with local authority area data available from the 2002 Census[31]. A number of indicators from the Census at the county level have been earlier identified as precursors of deprivation (Watson et al., 2005). Watson et al (2005) argue that there are underlying socio-demographic correlates of poverty and deprivation risk as contained in the 2002 Census. These include:

- Age structures of the region,
- Economic status & activity,
- Levels of educational attainment,
- Social class structures of a region

In this study, for each local authority area that a school leaver lived in, the characteristics of the area – as defined by the correlates of poverty and deprivation risk – were used as indicators of area characteristics in which students reside. A definition of these variables can be found in Table A5 in the appendix.

In addition to individual variables ranking local authority information, an overall deprivation score (Haase and Pratschke 2005) for each of the local authority areas was obtained, and used as a proxy for the level of socio-economic disadvantage in the area in which the young person lived. A key assumption of course is that the area conditions that prevail in the region around where a young person lives/goes to school accurately indicate the underlying structural strengths and weaknesses, and so possible labour market opportunities available to young people. While the deprivation index provides a reliable measure of disadvantage on the basis of the socio-economic indicators used in their construction, the measures used may mischaracterize students' actual regions given

[31] It was not deemed necessary to use any methodology in matching characteristics of local areas to the SLS using Census data. This assumption was taken because local areas in the SLS are defined from the Census Local authority areas. Therefore, we can be certain that a characteristic of the local area taken from the Census matches that of the local area defined in the SLS.

that fluctuations in the values of these indicators due to local factors could have an excessive impact on disadvantage scores (for more information see Hasse and Pratschkle 2005).

These measures were then merged with the SLS03 according to the local authority area in which the school leaver lives. Again, a key assumption is that the area conditions that prevail in the region around where a young person lives/goes to school accurately indicate the underlying structural strengths and weaknesses, and so possible labour market opportunities available to young people. A definition of these variables can be found in Table A5 in the appendix.

A number of further sources of data were requested from the Irish Social Science Data Archive in University College Dublin (http://www.ucd.ie/issda/). These included the 1998-2001 Quarterly National Household Survey, 1996-2000 Census of Population Sample, 1994, 1999/2000 Household Budget Survey and the 1994-1997 Labour Force Survey. These data sources were obtained (free of charge) with the purpose of providing insights into patterns over time among young people still in the second level education system, but proved not to be useful as described above. This will be discussed further in the following section. In addition OECD reports were used throughout the dissertation to provide contextual information.

4.4. Statistical Methodologies

The dominant statistical methodologies used were formations of generalised linear models, and include;

(a) Logistic regression
(b) Linear regression
(c) Ordinal regression
(d) Multinomial logistic regression
(e) Survival analyses
(f) Multilevel models

Other statistical methodologies and their issues considered included;

(a) Propensity score matching for addressing selection bias

(b) Heckman procedure for addressing selection bias

(c) Structural Equation Models

These techniques have been used in relation to the theoretical framework outlined in Chapter 1, both in relation to participation in part time job holding and school organised work experience among young people and the outcomes of these experiences acquired during second level education. The main assumptions of these theories are that work experiences acquired before leaving school can represent either a form of human capital acquisition or developmental properties. On the other hand, allocative theories point to the influence of selection into these types of work experience.

Linear Regression

The reasoning behind OLS regression is that you predict the values of a dependent variable as a liner combination of the values of one or more independent (predictor) variables. The general formula for a linear model for predicting the values of a dependent variable (Y) from one or more independent variables (X) is

Y = ßo + ßıXı + ßX2 +.....+ BnXn ... where Y is the predicted value and X is the ith independent variable. Coefficients are estimated using ordinary least squares, which results in the smallest sum of squared differences between the observed and predicted values of the dependent variable.

Logistic Regression

Logistic Regression has become the analytical technique of choice for the multivariate modelling of categorical variables (DeMaris 1995). Logistic Regression is used to correctly predict the category of the outcome for individual cases. When an outcomes variable is binary (employed/unemployed), logistic regression can be used to predict the

probability of employment as a function of early work experiences as well as other social characteristics. In the case of categorical dependent variables, ordinary linear regression cannot be used. Three main difficulties with using OLS regression with categorical data include (1) the use of a linear function, (2) the assumption of independence between the predictors and the error term and, (3) the error heteroskedasticity or non-constant variance of the errors across combinations of predictor variables (DeMaris 1995).

A logistic regression model can be generated in one of two ways; the latent variable approach or the probit analysis approach. It is the choice of distribution for the error term ε that determines the type of analysis that will be used. If one assumes that ϵ is normally distributed, we are led to using probit analysis. If one assumes that the errors have a logistic distribution, the appropriate analytic technique is logistic regression. However, the normal and logistic distributions are sufficiently similar in shape that the choice of distribution is not really critical. The method of choice was binary logistic regression given that the research question requires predicting the values of a binary dependent variable from a set of independent variables. The binary logistic regression model is most frequently used to model the probability that an event occurs. In logistic regression, the aim is to examine the probability of an event occurring. For the case of a single independent variable, the logistic regression model is:

$$\textit{Probability (event)} = P = \frac{1}{1+e^{-(a+bX)}} \ldots$$

Where B are coefficients estimated from the data, X is the independent variable, e is the base of the natural logarithms, approximately 2.718, and the probability (event) is the predicted probability than an event occurs. For more than one independent variable, the model is

Z = ßo + ßıXı + ß2X2 + ...BpXp

Where Z is the linear combination and p is the number of independent variables.

Ordinal Regression

A number of studies to date have emphasised the fact that social class inequalities continue to persist in educational levels for both the adult and youth population (Breen and Whelan 1993; Breen 1998; Whelan and Hannan 1999; Smyth 1999a). The methods employed in studies to examine educational inequalities in terms of examining retention and progression at second level generally use a dichotomous variable (dropped out or not, for example) and so use either binary logistic or multinomial regression methods (no quals, junior certificate, leaving certificate[32]). Studies of educational inequalities among school leavers have generally used multinomial logit models to assess the effect of explanatory variables on progression through the educational system by estimating the log odds of leaving school upon completion of the Intermediate/Junior Certificate and Leaving Certificate versus leaving schools without any formal qualifications. In a consideration of how to explain the impact of early work experiences on retention and progression in second level education, it occurred to me that retention and progression through the education system is dependent on completing stages or getting through 'risk' areas of the system. It makes sense to take advantage of the ordinal nature of educational attainment data of young people leaving school, particularly in the transition from junior cycle to senior cycle given that little attention has given to this progression using SLS data. The use of ordinal regression to measure educational progression is now common convention by sociologists as well as economists (Iannelli 2007; Halpin 2002; Armstrong and McVicar 1998, Breen, 2006, Gayle, 1996 and others). While level of education attainment could be modelled nominally (and often is) to get sensible results, it is more efficient to take account of the ordinality of the structure, this way we can 'make better fitting, simpler models and make stronger claims' (Halpin, 2002). Furthermore, standard log-linear models[33] do not take ordinality into account, thereby potentially they may disregard useful information (Gayle, 1996). Instead of considering the probability of an individual event, when ordinal regression is used, we consider the probability of that

[32] Alternatively, loglinear models can be used to examine whether the nature of the relationship between educational levels and social class inequalities have changed over time.

[33] What about ordinal log-linear models? It should be noted also, that even where ordinal models are used, the actual distance between the response categories cannot be determined.

event and all events that are ordered before it. Ordinal regression was then used to define progression through second level education. For example, in my random sample of school leavers I can identify whether young people

- dropped out of school before the junior cert,
- dropped out of school upon completion of the junior cert,
- continued on in post compulsory education but dropped out before completion and
- completed the established Leaving Certificate, LCVP or LCA

Ordinal regression models were used to consider the influence of part time job holding on progression through the second level education system in Chapter 7. The software being used is SPSS and STATA, which computes ordinal regression models based on a proportional odds model rather than a continuous ratio model. Thus, ordinal regression is a useful tool to model the relationship between educational retention and progression and part time job holding. In ordinal logistic regression, the event of interest is observing a particular score or less. The following odds are modelled:

Θ^1 = probability (dropping out before completing the junior cycle)/probability (all other outcomes)

Θ^2 = probability (dropping out before completing the junior cycle or dropping out having completed the junior certificate)/ probability (all other outcomes)

Θ^3 = probability (dropping out before completing the junior cycle or dropping out having completed the junior certificate or dropping out during senior cycle)/ probability (all other outcomes)

The last category does not have an odds associated with it, since the probability of scoring up to and including the last score is 1. All of the odds are of the form:

Θj = Probability (score $\leq j$) /probability (score $> j$) or the equation can be written as

Θj = Probability (score $\leq j$) / (1-probability (score $> j$) since the probability of a score greater than j is 1 minus the probability of a score less than or equal to j.

Multinomial Logistic Regression[34]

Multinomial logistic regression allows an examination of the relationship between the dependent variables and a set of predictor variables. The models are called multinomial because, for each combination of values of the independent variables, the counts of the dependent variable are assumed to have a multinomial distribution. In a multinomial logistic regression model the dependent variable (retention and progression) has j possible values (Drop outs before completing the junior certificate, drop outs upon completion of the junior certificate, drop outs during senior cycle, school leavers who completed upper secondary level) and the number of non-redundant logits that can be formed is $j - 1$. The most simple type of logit for this situation is called the baseline category logit. For each group, you calculate the log of the ratio of the probability of being in that group compared to being in the baseline group. If the baseline category is J for the ith category, the model is

Log ((P(categoryi)/P(categoryj)) = Bi0 + Bi^{1}X^1 + Bi^{2}X^2 + ... + BipXp

Unlike ordinal regression, there is a set of coefficients for each logit, which is why each coefficient in the previous equation has two subscripts: the first identifies the logit and the second identifies the variable. For the baseline category, the coefficients are all 0.

Multinomial logistic regression can then be used to compare the educational progression of four types of school leavers. Because the dependent variable has four categories, three non-redundant logits can be formed:

g^1 = log (P(drop out before completing junior cycle))/(P(completing senior cycle)) = B10 + B11 (had ptj)

g^2 = log (P(drop out upon completion of junior cycle))/(P(completing senior cycle)) = B10 + B11 (had ptj)

[34] Often called polytomous logistic regression. The Multinomial logistic regression procedure used by SPSS aggregates the data that affects goodness of fit tests (Norusis, 2005).

g^3 = log (P(drop out during senior cycle))/(P(completing senior cycle)) = B10 + B11 (had ptj)

4.5 Structure of the Data

Structure of the Data

The previous section has outlined that the sampling procedure for the SLS03 uses a two-stage sampling procedure. That is, the population of interest consists of subpopulations (schools), and selection for the survey takes place via those subpopulations (students). That is, in the sampling procedure, a random sample of the school (the primary unit) is taken in the first stage and then the pupils (the secondary unit) are sampled at random from the selected primary units in the second stage (see Goldstein 1995; Snijders and Bosker 2000). In the case of the SLS03, pupils are grouped within schools, and so groups of observations within the dataset come from a common source; schools. The structure of the data then represents a two level hierarchical model of 2304 pupils within 232 schools. This means that two observations (pupils) randomly taken from within this particular source are generally not independent and it is important to model this dependency using multilevel modeling.

In accounting for the structure of the data, by using multilevel modeling, we are removing the independence assumption between level one units from the same level two units and instead portioning the variance into variances between the units at the two levels in the dataset. Thus, in order to take into account the clustering of the sample, key models that have previously been estimated in a fixed effect framework have been re-estimated in a multilevel framework using *MlwiN* thus allowing for school variation on the probability of the outcome. Because the outcome variable of interest in the analyses presented in Chapters 5-8 vary between categorical dependent variables and linear dependent variables, both Hierarchial Generalised Linear Models (HGLM) and Hierarchial Linear Models (HLM) will be used (Raudenbush and Bryk 2002).

Consequences of Ignoring the Multilevel Structure

The point of multilevel modelling is that a statistical model explicitly should recognise a hierarchical structure where one is present: if this is not considered then there are consequences of failing to do so. Take for example an outcome or response variable representing participation in a term time part time job in 5th year, and a predictor variable, parental social class background. Using a fixed effects regression technique, the average rate of part time job holding in 5th year would be estimated for all 2304 pupils. The variation between schools could be modelled by using an interaction between part time job holding and school, thus producing separate terms for each school. According to Rasbash et al., (2005) this procedure is inefficient for three reasons. Firstly, it is inadequate for the purpose of generalization, because it involves estimating many more coefficients than the multilevel procedure. Secondly, this method does not treat schools as a random sample, thus providing no useful quantification of the variation among schools in the population more generally. By focusing attention on the levels of hierarchy in the population and partitioning the variance, multilevel modelling allows to understand where and how effects are occurring. Finally, Rasbash et al., (2005) posit that carrying out an analysis that does not recognise the existence of clustering at all, for example a pupil level analysis with no school terms, creates serious technical problems. For example, in an examination of the relationship between exam grades and prior ability, the relationship is 'universal', that is, it does not take into account school effects. Traditional regression techniques hold the assumption that there is no autocorrelation within the data, that is, that pupils represent independent observations rather than being clustered within schools. However, it cannot be assumed that pupils in the same school are completely 'independent of each other'. Groups rarely form at random and once formed, the members of a group interact with each other to create even greater homogeneity (see Smyth 1999b). Ignoring clustering in the sampling frame will generally cause the standard errors of regression coefficients to be underestimated. It also results in mis-estimated precision, confidence limits and tests (Jones 1991). Consequently, using covariance regression techniques as opposed to multilevel techniques for research on school increases the risks of finding differences and

relationships where none exist (Goldstein 1997). Thus, the multilevel approach explicitly takes auto-correlation into account, resulting in robust standard errors and improved estimates of school level variables. Furthermore, it allows for the possibility of heterogeneity at both higher and lower levels. In the case of few students in a school, multilevel estimates are precision weighted to reflect the number of observations on which they are based. Estimates are multiplied by a shrinkage factor whereby the estimated school mean moves towards the overall mean if there are a small number of students in a particular school (Smyth 1991). The approach used in this study is based on two levels: pupils within schools and two level random intercept models are presented.

4.6 Methodological Issues

Based on a review of the literature, there are two methodological issues which are addressed in relation to the analyses in this dissertation. These issues are sample selection bias and endogenity. A discussion of these issues will be provided in the following chapters, indicating how these methodological issues might affect the ways in which the models are set up, and how they might influence the interpretation of the results. At this stage a general overview of possible these issues will be provided, and in the subsequent chapters, examples will be given as to how other researchers have dealt with these problems, for example, citing work that has a measure of prior attainment to model participation in, and the effects of part time job holding during second level. In this dissertation, a differentiation is made between two selection bias issues; sample selection bias and endogeneity or unobserved heterogeneity.

Sample Selection Bias

Sample selection bias may be evident where information on the *dependent* variable is missing for some of the respondents. In general, sample selection bias refers to problems where the dependent variable is observed only for a restricted, nonrandom sample. That is, the selection issue is related to the left hand side of the equation. In such a case, Tobit models or the Heckman two-step estimation procedure should be considered whereby there is a second equation, called the selection equation which determines whether an

observation makes it into the sample. This causes the sample to be non-random, drawn from a special subpopulation of a wider population (Kennedy 2008). Traditional examples of sample selection bias occur in the economics literature particularly in relation to wage equations (see Berk 1996). For example, one observes an individual's wage only for those for whom their wage exceeds the reservation wage, that is, only for those who have self-selected into employment. There are some examples of sample selection bias in the literature addressed in this dissertation. For example Rothstein (2007) when assessing the impact of part time employment on grades, she states that 'grade point average is not observed for years after youths drop out of high school. Drop outs and non-dropouts may have disparate work behaviours in unobservable characteristics. This sample selection issue needs to be addressed in any empirical analysis of this type' (Rothstein 2007:195-196).

Endogenity and Unobserved Heterogenity and Confounding Variables

In statistical regression models the exogeneity of the independent variables, or regressors, is assumed. However, this may be false and problematic if an independent variable is correlated with the error term in a regression model. This implies that the regression coefficient in an OLS regression is biased. Because of this endogeneity, significant correlation can exist between the unobserved factors contributing to both the endogenous independent variable and the dependent variable, which results in biased estimators (incorrect regression coefficients). Additionally, the correlation between the dependent variables can create significant multi-collinearity, which violates the assumptions of standard regression models and results in inefficient estimators. As a result, coefficient standard errors may be larger than true standard errors, which biases the interpretation towards the null hypothesis and increases the likelihood of a type II error. This has been a pervasive problem in cross-sectional analysis. Furthermore, a confounding variable is a variable that is related to both a treatment and an outcome (Winship and Morgan 2008). The problems of endogenity can be overcome by using simultaneous equations approach or an instrumental variables approach. This form of selection bias is often referred to unobserved heterogeneity or endogeneity bias. That is,

information on the dependent variable is available for all respondents, but the distribution of the respondents over categories of the independent variable we are concerned with may have taken place in a selective way. That is, an independent variable included in the model could be potentially a 'choice' variable, correlated with unobservables relegated to the error term. According to Rubin

> *'the obvious problem created by observational studies is that there may exist systematic differences between the treatment groups besides treatment exposure, and so any observed differences between the groups with respect to an outcome variable might be due to confounding variables rather than the treatments themselves. Consequently, a primary objective in the design and analysis of observational studies is to control, through sampling and statistical adjustment, the possible biasing effects of those confounding variables that can be measured: a primary objective in the evaluation of observational studies is to speculate about the remaining biasing effects of those confounding variables that cannot be measured'* (Rubin in Rubin 2006: 7).

The second type of sample selection bias or endogeneity is of particular interest to this study. I now illustrate two examples.

Example 1: Trade Union Participation and Wages Take for example a study estimating the effect of trade union participation on wages, where wages are observed for all respondents and information is given on whether the respondent is a trade union member or not. Here union status may be endogenous if the *decision* to join or not join a union is correlated with measures that are unobserved, but that also affect wages – the 'outcome'. The unobserved is important if, for example, less able workers are more likely to join a union and therefore receive lower wages ceteris paribus, therefore, failure to control for this correlation will yield an estimated union effect on wages that is biased downwards.

Example 2: Migration and Wages For example, if we are examining the effect of migration on income using a random sample of the population, we have information on income and whether or not the respondent has migrated to another place in the past. If a regression with income as the dependent variable and a dummy indicating whether or not the respondent migrated in the past as one of the independent variables is undertaken, the

researcher may get a biased estimate of the migration effect. Why would this be so? Because of unobserved or unmeasured variables, the distribution of respondents over the category of migrants and non-migrants may be non-random. That is, people who choose to migrate may differ in many (measured or unmeasured) characteristics from people who do not. If these characteristics are related to income, the coefficient of the migration dummy may catch up these effects and be biased because of this. Controlling for these differences would solve the problem. However, it is generally not possible because in any dataset the number of control factors is limited, whereas the number of possible differences among individuals is infinite. One can never be sure that all relevant differences are taken into account.

In the following empirical chapters, a consideration of and discussion surrounding selection bias will be included where appropriate, placing particular attention on unobserved variables which may account for the selection bias. However, it should be outlined that the empirical issues raised in assessing the determinants of part-time work and its consequences are complex, and this has been stressed in a number of studies (see for example Dustman et al., 1996, 2001; Singh 1998; Stinebrickner and Stinebrickner 2001; Light 2001; McCoy and Smyth 2004). In any 'choice' decision, a series of potentially interrelated decisions are involved, and, at the individual level, expectations are likely to play a central role in determining the choices that individuals make. Each of the studies above indicate that because of this, it is more complicated to evaluate the educational and labour market consequences of part-time work. For example, a young person working part-time might have chosen this option because they perceive themselves as needing to compensate for poor examination prospects by gaining work experience, but if this is unobserved, then it may be difficult to reach conclusions about the effects of part-time work on educational outcomes. The results discussed in this chapter certainly do not claim to provide the final word on the determinants and effects of part-time work by young people while in education, but the aim is to assemble the information necessary, particularly in relation to the policy issues surrounding part time job holding.

Chapter 5: An overview of Second Level Education in Ireland, with particular emphasis on curriculum differentiation at senior cycle

5.1 Introduction

Before considering the characteristics of school leavers who obtain work experience before leaving school, this chapter offers an overview of the Irish second level education system, placing particular emphasis on curriculum differentiation at senior cycle. Given the paucity of research on curriculum differentiation in the Irish context, this chapter will now use the SLS03 to examine the (average) characteristics of young people who participate in these programmes. That is, it considers the characteristics of students who participate in different programmes at senior cycle, that is, the established Leaving Certificate, the Leaving Certificate Vocational and the Leaving Certificate Applied. A key objective of this chapter is to recognise diversity in the senior cycle curriculum and to consider the characteristics of young people who participate in each of the programmes on offer. Thus, the specific research questions being addressed in this chapter are;

- What are the characteristics of students who complete the LCVP or the LCA versus the established Leaving Certificate? Do participation levels vary across schools?
- How do students who pursue a vocational type route (LCVP, LCA) differ from those who pursue a more academic route (established Leaving Certificate) in relation to individual level and school level characteristics?
- What are the implications for educational inequality?

These research questions provide a context for an examination of the influence of work experience acquired before leaving school. The current chapter is set out as follows. The following section, Section 5.2, provides an overview and description of the Irish Education system, paying particular attention to the programmes on offer in senior cycle. In addressing the characteristics of students who pursue different programmes in senior cycle, section 5.3 provides an overview of previous research on curriculum differentiation and offers a theoretical framework for the chapter. Section 5.4 considers the data and methodology in testing the hypotheses derived

from the literature review. Section 5.5 outlines the analytic strategy and results. Finally section 5.6 offers a summary of the chapter.

5.2 The Irish Educational System

Table 5.1 provides an overview of the education system in Ireland. Upon completion of primary education, typically at age twelve or thirteen, young people in Ireland enter second level education: secondary school, vocational school, or community/comprehensive schools; in either private or public schools.

Unlike other countries, Irish parents are not bound to the local area in which they live to send their children to secondary education (see Byrne and Smyth, forthcoming) and so a high degree of school choice operates in the Irish context. Second level education is generally conceptualised as two 'cycles' – 'junior cycle' which covers the first three years of second level education; 1st year, 2nd year and 3rd year - and 'senior cycle' which covers the last two or three years of second level education, depending on whether Transition Year is taken immediately after junior cycle.

An explanation of Junior Cycle Education

Schooling is compulsory in Ireland from the ages of six to sixteen years, or upon completion of three years of second level education. The junior cycle lasts for three years and culminates in the Junior Certificate examination, generally taken at ages fourteen/fifteen. Upon completion of the Junior Certificate examination, young people either leave the second level education system; or enter a two year or three year senior cycle, depending on participation in Transition Year (see Figure 5.1 below).

Table 5.1: An overview of progression through the Education System in Ireland[35]

	Typical Age	
	Ages 21/22 onwards	Post Graduate Study
Post Leaving Certificate Course Apprenticeship Training Private Business School	Ages 17-18 onwards	Universities Institutes of Technology Private 3rd Level
FURTHER EDUCATION		**THIRD LEVEL**
FURTHER EDUCATION OR THIRD LEVEL EDUCATION		
Typical Age		
Ages 17-18	6th Year	Second level education is provided in Secondary, Community, Comprehensive and Vocational Schools, Private and Special Schools
Ages 16-17	6th Year /5th Year	
Ages 15-16	5th Year / Transition Year	
Ages 14-15	3rd year	
Ages 13-14	2nd year	
Ages 12-13	1st year	
SECOND LEVEL EDUCATION		
Typical Age		
Ages 11-12	Sixth Class	Primary Education is provided in National Schools, Private Schools (from 1st class onwards) and Special Schools.
Ages 10-11	Fifth Class	
Ages 9-10	Fourth Class	
Ages 8-9	Third Class	
Ages 7-8	Second Class	
Ages 6-7	First Class	
Ages 5-6	Senior Infants	
Ages 4-5	Junior Infants	
PRIMARY EDUCATION		
Typical Age		
Ages 3-4	Early Start	
PRE-PRIMARY EDUCATION		

[35] This table has been replicated from Chapter 2.

Figure 5.1: Progression through the second level education system

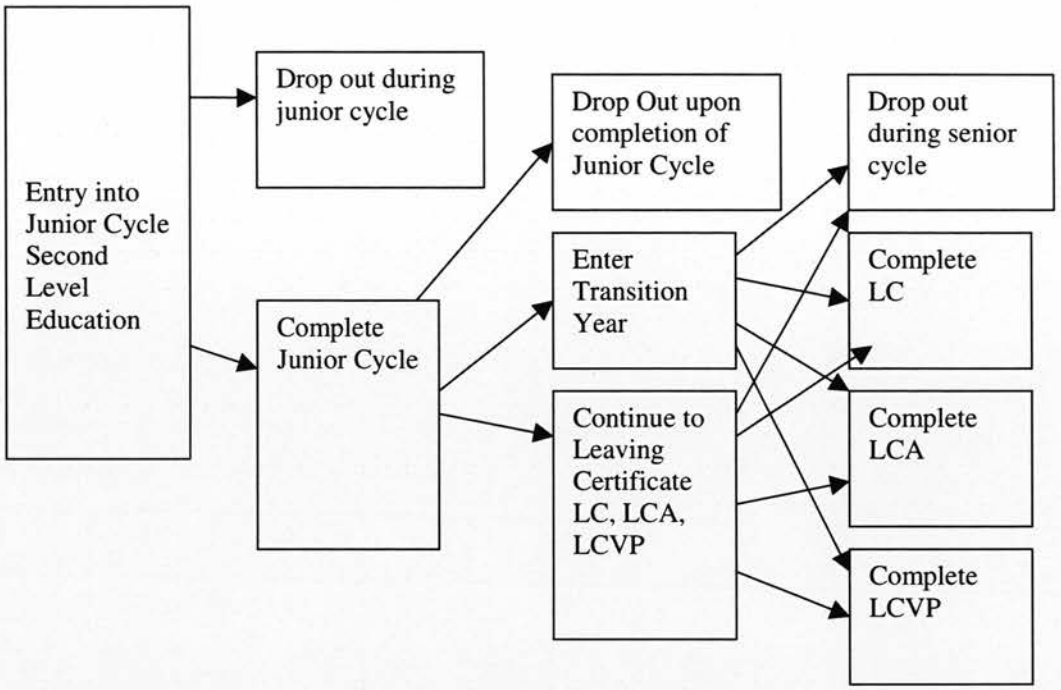
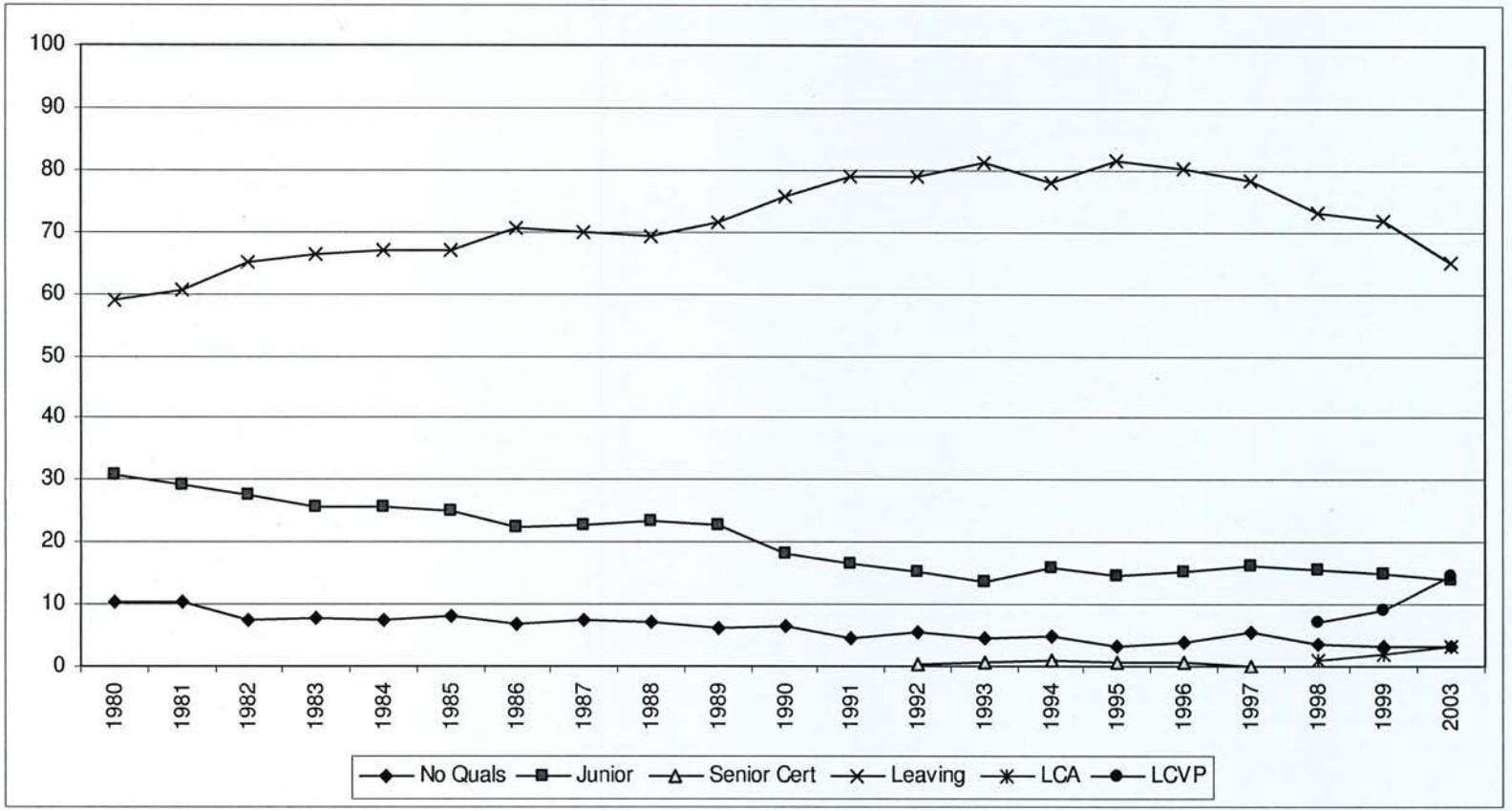


Figure 5.2: Trends in levels of second level education completed by school leavers 1978- 2001

(Source: School Leaver Surveys, all years)



An explanation of second level education

Figure 5.2 provides an overview of trends in the level of second level education completed by school leavers, using all Irish school leaver surveys available at the time of writing. What is clearly evident is that the percentage of young people leaving school without any formal qualification has steadily declined since the survey began, as has the percentage leaving school having acquired at least a lower second level qualification (the Junior Certificate). In contrast, rates of completion of second level education have steadily increased, and a decrease in the percentage of school leavers completing the established Leaving Certificate is accompanied by an increase in the percentage of school leavers completing the Leaving Certificate Applied and the Leaving Certificate Vocational Programme.

As Chapter 2 has outlined, senior cycle education has been subject to reform throughout the 1900s, but more so since the 1970s. The senior cycle of second level education now comprises a two or three-year senior cycle programme; a move that has been a direct outcome of policy to improve retention rates at senior cycle through diversifying the curricula. In a three-year senior cycle, students would take an initial Transition Year programme and then proceed to pursue one of the three Leaving Certificate programmes – the Leaving Certificate (established), the Leaving Certificate Vocational Programme or the Leaving Certificate Applied.

Alternatively, in a two-year senior cycle, students proceed directly from completion of the junior cycle (marked by sitting the Junior Certificate examination) into one of the three Leaving Certificate options, and, in the case of the established Leaving Certificate and Leaving Certificate Vocational Programme, avail of the potential to repeat the examination. Unlike second level education systems in other countries, participants cannot move between programmes, or mix-and-match elements of each of the programmes, resulting in limited flexibility across tracks. However, according to NCCA guidelines, the exception to this is the Leaving Certificate Vocational Programme where the same syllabus for the Leaving Certificate is undertaken within the parameters set by the permitted vocational groupings;

> *As a result, it is arguable that while we have retained the appearance of a unified Leaving Certificate, the reality experienced at the level of the school or education provider is that we have a senior cycle with a*

number of tracks with all the difficulties this can give rise to in terms of parity of esteem between programmes and consistency and coherence across programmes. On the other hand, the benefits of this approach include clarity of provision and options for providers and learners and the concerted focus that individualised programmes provide for implementation support' (NCCA, 2003b: 12).

An overview of programmes on offer at Senior Cycle

The Leaving Certificate (established)

Performance in the Leaving Certificate examination is used to select allocation into further and higher/third level education. In general, five or more subjects (usually seven) are taken for the examination from the subject groupings outlined in Table 5.2.

Table 5.2: Overview of Specified Leaving Certificate Subjects

Groups	*Subjects*
Language Group	English, French, German, Irish, Italian, Latin, Greek, Spanish, Classical Studies, Hebrew Studies, Russian, Polish.
Science Group	Applied Mathematics, Biology, Chemistry, Mathematics, Physics, Physics and Chemistry
Business Studies Group	Accounting, Business, Finance, Economics, Economic History
Applied Science Group	Agricultural Science, Agricultural Economics, Construction Studies, Engineering, Home Economics (General), Home Economics (Scientific and Social), Physics and Chemistry, Technical Drawing.
Social Studies Group	Art, Geography, History, Home Economics (General), Music.

Leaving Certificate Vocational Programme

The Leaving Certificate Vocational Programme (LCVP) is a two-year programme that was introduced in 1994 as part of the Department of Education and Science (DES) vocational training provision at upper second level. The programme was introduced in a response to the challenge that a changing work and business environment placed on the Irish education system. The target group is 15-18 year

olds who have completed compulsory schooling (junior cycle) but who need vocational training to enhance their prospects of gaining employment or further education and training. The LCVP combines the academic strengths of the established Leaving Certificate with an emphasis on self-directed learning, enterprise work and involvement with the community. Since its inception in 1994, the structure has remained broadly the same with some small changes. Originally the LCVP comprised of the Leaving Certificate syllabus with two 'add on' specialist and service modules in construction, engineering and technical drawing; producing trainees with a Leaving Certificate and specific skills for engineering and construction. Furthermore, Irish was compulsory and students took at least one other Leaving Certificate subject. One could argue that the current LCVP programme offered in schools is less 'skill-specific'. In the LCVP provided in schools today, students must take a minimum of five Leaving Certificate subjects, two of which must be from the designated vocational subject groupings. Two link modules – preparation for the world of work and enterprise education must be studied and students are also required to study a European language. In terms of assessment and certification, Leaving Certificate subjects are examined through the standard Leaving Certificate examination. The LCVP link modules are assessed and certified by the NCCA and students receive a Leaving Certificate with an additional statement of the results of the link modules[36]. In terms of access to further study, the LCVP offers students the same opportunity to proceed to university and college as students pursuing the established Leaving Certificate[37].

Leaving Certificate Applied

The Leaving Certificate Applied (LCA) was introduced in 1995 and financially supported under the Community Support Framework (CSF) 1994-1999. The programme was developed by the National Council for Curriculum Assessment (NCCA) and the Department of Education and Science (DES) and replaced the

[36] Since September 2002 the link modules have been reduced from three to two, and while work experience used to be a compulsory aspect of the LCVP but is not any longer. This is partly due to findings from an Inspectorate report which indicated that low parental perceptions of the importance of the link module, which included work experience. This likely arose from the fact that these link modules are not recognised by the Universities for access to higher education.

[37] Access to third level education in the Republic of Ireland is administered through the CAO/CAS system that represents a points system.

Vocational Preparation and Training Programme at the NCVA Level 1 in 1998. In terms of work experience, sixty-six per cent of those who have enrolled in a Leaving Certificate Applied programme have taken part in a work experience placement. Established as a distinct self-contained programme that offers students an alternative to the established Leaving Certificate, the Leaving Certificate Applied is a two year programme with an innovative modular form of course structure, completely different to that of the established Leaving Certificate or the Leaving Certificate Vocational Programme (LCVP), with a specific emphasis on active teaching and learning experiences. The programme is structured around three modules: Vocational Preparation, Vocational Education and General Education. The pre-vocational nature of the Leaving Certificate Applied facilitates a focus on preparation for adult and working life and for continuing and further education, and student activities are practical and task-based in orientation. However, a distinct feature of the Leaving Certificate Applied is that it does not provide direct access to third level, but students can access third level via post second level education particularly Post Leaving Certificate (PLC) courses at NCVA Level 2.

Transition Year

Transition Year has been in existence since the 1970's but a large scale expansion of the programme has post-dated its restructuring by the Department of Education in 1994 (Smyth, Byrne and Hannan 2004). In this time the programme has gone through three phases of development since its introduction in 1977. While there have been many changes and developments to the programme throughout the period, the philosophy, rationale and overall aims of the programme have retained broadly the same focus, and the programme is offered to those who intend to move on to complete the Leaving Certificate. It is important to note that Transition Year is not a compulsory programme, and while it is available in the majority of schools, it is not offered in every second level school in the country.

DES guidelines specify the mission of Transition Year (TY) '*to promote the personal, social, educational and vocational development of pupils and to prepare them for their role as autonomous, participative and responsible members of society*' with an emphasis on personal development, interdisciplinary and self-directed

learning and experience of adult and working life, and to allow students to reflect on their own experiences. Transition Year has been designed to give young people aged 14-16 years old a taste of the world of work by providing work experience. According to the Department of Education and Science guidelines;

> *It is intended that the Transition Year should create opportunities to vary the learning environment and to dispel the notion that learning is something that happens only, or even most effectively, within the classroom. One of the ways of doing this, and of providing an orientation towards the world of work is to include a component of actual work experience.*

Based on figures derived from the SLS03, 25 per cent of the school-leaving cohort have participated in Transition Year, with a completion rate of 91 percent. 79 per cent of those who have participated in Transition Year have had a period of work experience at some stage of senior cycle, and 82 per cent of those who completed Transition Year had a Transition Year work experience. Table 5.3 below provides a summary of the main characteristics of these programmes that offer school organised work experience at senior cycle.

5.3: Previous research on curriculum differentiation at senior cycle in Ireland

Irish studies to date have generally focused on the education and labour market outcomes of young people who leave school at different stages of senior cycle education – that is, whether they have dropped out or completed senior cycle - rather than the actual structure of senior cycle in terms of the actual programme being pursed at senior cycle. Despite the existence of differentiation in the senior cycle curriculum for some time, studies of senior cycle are lacking in three important aspects. Firstly, they fail to make a distinction between programmes on offer at senior cycle. Secondly, studies have not yet considered the characteristics of young people who pursue different programmes and finally, there has been no examination of whether the characteristics of students pursuing these 'vocational', 'pre-vocational' and 'academic' programmes has changed over time[38].

[38] As a follow up to this dissertation, at the time of writing, funding applications have been submitted by myself as part of my post-doctoral studies at the ESRI to pursue these issues. For an example of this type of research in other contexts, see the work of Delci and Stern (1999) who suggest that the proportion of high school students participating in vocational course sequences has declined during the 1980s and early 1990s.

Table 5.3: Overview of Programmes on offer at senior cycle

	Curriculum	Assessment	Certification	Certification
Established LC	Subjects	Written Examination	Leaving Certificate	State Examination Commission
LCVP	At least 5 Leaving Certificate subjects, including Irish Two subjects from the vocational groupings Two link modules Course in modern language other than Irish English	Written Examination for Subjects Link modules examined by written examination (40%) and by portfolio of coursework (60%).	Leaving Certificate with an additional statement of results of Link Modules*	State Examination Commission
LCA	Modules	Terminal Examinations in English and Communication Two Vocational Specialisms Mathematical Applications One Language Social Education	Leaving Certificate, Record of Experience	State Examination Commission

Link modules are recognised for points purposes by the Institutes of Technology and the Universities.

A review of existing research on senior cycle education in the Irish contexts points to a research tradition in relation to curriculum differentiation. Rather than considering the actual educational programme being pursued by young people at second level education, Irish studies have generally followed a research tradition which considers the number of vocational type subjects being pursued (see for example Hannan and O'Riain 1993; Hannan, Breen et al., 1983) thus, placing more emphasis on the nature of subject choice and subject availability, rather than on the structure of educational pathways. Studies of subject availability and subject choice at senior cycle consistently point to pronounced gender and social class differences in the take up of senior cycle subjects (Hannan, Breen et al., 1983; Breen 1986; Darmody and Smyth 2005; Lynch and Lodge 2002). Because of the dearth of research in this area, the effects of curriculum differentiation in the past and the effects of greater differentiation at senior cycle at present remain largely unknown. When research has considered these issues, they have tended to examine labour market outcomes immediately upon leaving school. For example, Hannan and O'Riain (1993) report that for the majority of pupils who do not go on to third level education, placement in a vocational track or specialisation in vocational/technical subjects at second level appear to have significant positive effects. However, they also indicate that this group are more likely to be employed upon leaving school in the first place, but are also more likely to be satisfied with the quality of the education they receive (see Hannan and Shortall 1991).

Research reviewed in Chapter 2 indicates that from their inception, programmes at senior cycle, particularly those offering a school organised work experience, have been structured by school type and socio-economic background from the very inception of offering work experience in the curriculum. Take for example the pre-employment course and the Vocational Preparation and Training Programme (VPTP) which are no longer on offer, but which have represented a form of curriculum differentiation in the past. In the case of the pre-employment year, Williams and O'Shea (1981) indicate that pre-employment courses were generally found in vocational and community/comprehensive schools rather than secondary schools which were deemed more academic at that time, and that provision was associated

with the most disadvantaged of young people. Research has indicated that while the Vocational Preparation and Training Programme (VPTP) was offered in all types of schools, 80 per cent of VPTP provision was provided in vocational schools and community colleges (Department of Enterprise and Employment 1994; O'Kennedy and Whelan 1989; O'Donovan 1990). This leads us to an expectation that pre-vocational and vocational programmes currently on offer in senior cycle continue to be structured by school type and socio-economic background.

In the absence of Irish research, I now turn to a body of international research that has paid considerable attention to vocational education and curriculum differentiation at second level, particularly in relation to the characteristics of participants and consequences for post-school outcomes (see for example Neuman and Ziderman 2003 in Israel, Bishop and Mane 2004 in the US). A departure from Irish research is not so severe given the common rationale for providing a vocationally relevant curriculum across institutional contexts, that is, is that vocational involvement can benefit students by offering skills (hard or soft) that are of benefit in the labour market.

The international literature argues that curriculum differentiation may decrease gender inequality by offering to all students learning opportunities that match a students abilities and interests (Raccah and Ayalon 2003). Raccah and Ayalon also argue that curriculum differentiation may have the potential to increase inequality as students are channelled into programmes according to their gender. For example, they argue that the structure of a schools' curriculum may serve as a mechanism that can hinder or advance the likelihood of females to enroll in higher education by differentially offering the educational resources needed for attending higher education.

The vast majority of international literature finds that students from different socio-economic backgrounds and with different academic abilities enrol in different types of programmes at upper second level (Rees et al., 1996; Ainsworth and Roscigno 2005). For example, Rees et al., (1996) in the United States find that students from low socio-economic backgrounds, blacks and Hispanics are more likely to be enrolled in lower track classes and less likely to be enrolled in upper

track classes. Research has also indicated that the curricular track being pursued by the young person is also related to their personal preferences, choices and abilities, but also to the social and academic resources and the curricular policy of the schools they attend (see for example Lee Smith and Croninger 1997 in the US). In this sense, schools can limit or expand students' opportunities as a function of the programmes that are on offer (Lucas and Berends 2002; Ayalon and Yogen 1997; Gamoran 1992; Oakes 1990;). When schools offer a restricted curriculum, students have limited choices and all students take similar courses. The following section now moves to the dominant theoretical frameworks that explain educational stratification.

The dominant theoretical frameworks that explain educational stratification

The characteristics of participants in programmes at senior cycle can be examined in terms of competing theoretical frameworks, as outlined in Chapter 1. On the one hand, human capital theory argues that all education, whether it is vocational or academic in nature, can improve economic prospects in the labour market. It argues that education, even vocational or pre-vocational type education, equips students with skills, which can enhance their productivity on the job. However, human capital theory does not offer an explanation as to why different groups of people pursue different programmes.

On the other hand, theories of class differentiation (Shavit and Kraus 1990, Bowles and Gintis 1976; Bourdieu and Passeron 1990) offer explanations as to why different groups of people pursue different programmes. According to this view, tracking[39] is a mechanism for the reproduction of educational inequality across generations; that is, lower class students are typically placed in lower tracks, which in turn, reduce their chances of attending university and entering professions and other high prestige occupations (see for example Gamoran and Mare 1989; Arum and Shavit 1995).

Shavit and Muller (2000) outline four reasons as to why vocational tracks inhibit further educational attainment. First, attending a class alongside highly motivated and academically successful students enhances one's own chances of success (Coleman et al. 1966; Hallinan & Williams 1990). Since academically

[39] Tracking refers to the practice of assigning students to instructional groups on the basis of ability.

weaker students usually attend vocational tracks they are deprived of the beneficial effect of a more favorable milieu. Secondly, vocational tracks offer a more restricted curriculum (Gamoran 1987; Oakes 1985) and their students are less likely to take advanced courses. Third, in the less selective tracks, less time is devoted to actual instruction (Oakes 1985), and instruction is conducted at a lower level of intellectual complexity (Metz 1978). Consequently, students in the lower tracks learn less than those in the upper tracks and are less likely to succeed in college admission tests. Fourth, being placed in a lower track or ability group signals to students that they are less worthy, which in turn dampens both their expectations of what they can achieve and their aspirations for the future (Vanfossen et al. 1987). Furthermore, vocational track placement at the secondary level reduces students' chances of going on to college or at least makes the transition longer.

While academics agree that vocational and academic students differ in terms of educational attainment, they disagree on what lies behind this difference. Some researchers believe that *tracks shape students* and that tracking is responsible for the attainment gap between academic and vocational students. Others argue that the attainment gap is the inevitable result of *student self-selection* into academic and vocational programs. This view holds that students who select academic or vocational programs differ so much in aspirations and aptitude to begin with at the start of second level education, that differences in attainment would hold irrespective of their experiences at school.

Hypotheses

Based on a review of the literature above, a number of hypotheses can be derived in relation to the research questions being addressed. Firstly, we expect that males are more likely to pursue vocational programmes at senior cycle given their higher levels of drop out at second level relative to females. Furthermore, studies consistently find that females have higher levels of attainment at all levels of education (Department of Education and Science 2007). Secondly, we expect that students displaying more disadvantaged characteristics are more likely to pursue a vocational type track than an academic track. Because parents are not bound to the local area in which they live to send their children to secondary education (Byrne and Smyth forthcoming), it is

likely that middle class parents will opt to choose a school with a more restricted academic curriculum. Thirdly, in relation to the school type attended, we expect that those attending secondary schools are more likely to pursue an academic track than those who attend either a vocational or community/comprehensive school. This is hypothesised because of two reasons. Firstly, the literature to date suggests that secondary schools are less likely to suffer from 'cream-off' than other school types (see Byrne and Smyth forthcoming), that is, secondary schools have a tendency to attract the most academic students in the area. Secondly, as was outlined previously in the chapter, vocational and community schools have an established history of providing vocational programmes with a work experience component.

5.4 Data, and Measurement of Variables

Data

I address potential inequalities of differentiation at upper senior cycle using the new dataset with information on the nationally representative sample school leavers, the schools they attend and a measure of the socio-economic deprivation of the area in which they live. This dataset is well suited for investigating both participation in different types of education programmes at second level and outcomes of curriculum differentiation, as it offers information on participation in different programmes at upper senior cycle and the wide range of information available in the SLS03 facilitates the inclusion of many important controls in the analysis.

Measurement of Variables

Dependent Variable

The dependent variable that was used relates to the type of curriculum that students participate in during senior cycle. The effective sample size of this analysis was 1408 observations, as it considered only those who completed second level education. The dependent variable was the programme of study completed by the school leaver. Students who completed upper second level education were classified according to their answers in the following question '*Were you ever enrolled in the Leaving Certificate Applied (LCA) or Leaving Certificate Vocational (LCVP) programmes*?'

A multilevel multinomial regression modelling participation in the LCA or LCVP versus the established Leaving Certificate was estimated to consider whether participation in these programmes differs across schools and to examine whether the characteristics of students who complete the LCVP or the LCA differ from those who complete the established Leaving Certificate.

It is important to note that concern has been expressed about using student self-identification to classify a student's curricular programme or track (for example see Rosenbaum 1980). The issue of self-report information is particularly interesting given the findings by Arum and Shavit (1995). Arum and Shavit (1995) used both student self-identification and transcript based indicators to measure participation in curricular programmes. They found that using both types of measures gave consistent results, but that the transcript based definition gave a larger estimate of students in the vocational track and a smaller estimate of students in general and academic tracks. While some would argue that using a students' self-placement is preferable because of the importance of its meaning to the student (see Gamoran 1987; Gamoran and Mare 1989) in this study, the data was checked thoroughly to ensure that the programme being reported by the student was the actual programme being pursued, as in the case of other studies (Vanfossen, Jones and Spade 1987; Lucas and Gamoran 1993).

Independent Variables

Individual and Family Background

Independent variables included gender, and a range of socio-economic variables. These included parental social class, highest level of parental education, household employment situation and family structure (number of parents present). The inclusion of family structure as an additional family background characteristic represents a significant contribution to the analyses of school leaver data, as this variable has not generally been used in educational research in the Irish context. It was measured using a binary variable (single parent household, two parent household), with two-parent household comprising the omitted reference category. A single parent family represents those from whom parents are separated as well as

those for whom a parent has died as well as other single parent families. In addition, household employment situation was based on a proxy of parental employment situation that was measured at the time of the survey, and makes reference to work rich and work poor households (see Iacovou 2003). A household with full employment represents a household in which all parents present in the household (one or two) are in employment at the time of the survey, while a household exposed to unemployment consists of a household where at least one parent is unemployed, even if only one parent is present in the household. Of particular interest is the role these dimensions of stratification play in student participation in different curricular tracks. Based on the literature outlined above, parental social class background, gender and school type attended were expected to play an important and independent role in educational the pathways pursued.

International research suggests that young peoples' involvement in vocational type programmes at upper second level and their subsequent employment can also be affected by local labour market conditions. It is hypothesised that different settings could influence the processes leading to the provision of curricula differentiation in schools. While modelling specific labour market attributes was beyond the scope of this dissertation, a measure of socio-economic deprivation of the local authority area in which the student lives was included in the models and added as a categorical variable.

School level variables

A number of school level variables were also derived from the dataset based on findings from the international research (Rees et al., 1996; Rosenbaum 1980). The school type that the school leaver attended before leaving school is used and is presented in the form of two dummy variables with secondary school as the reference category. In addition two other school level variables were identified from the dataset: gender-mix of the school (mixed, single-sex) measured as a binary variable, and average socio-economic mix of the school, which was measured as a continuous variable.

Controls not included in the models

Despite the plethora of research suggesting that students of lower academic ability participate in vocational type programmes at second level education, the SLS03 does not contain a reliable measure of prior academic achievement for this cohort of school leavers. The SLS records the results of the Junior Certificate examination only for those who left school with the Junior Certificate as their last examination. Given that previous educational attainment is a key determinant of the track being pursued, attempts were made to derive an OPS score (overall performance score) in the Junior Certificate for whom information was available. I was able to derive an OPS score for those who dropped out of school upon completion of the Junior Certificate, however, this was possible for just 37% of this sub-sample. Furthermore, among those who dropped out of school during senior cycle, an OPS score was derived for just 47% of this sub-sample. Missing data was largely evident among those from lower social class backgrounds and from those whose parents had lower levels of education. Thus, it was decided not to use this OPS score because of the vast amounts of missing data, but also because data was not missing at random.

Other controls not included in the model were prior individual cognitive skills or competencies (these skills have been shown to affect the educational process, see for example Ainsworth and Roscigno 2005) or intentional educational or occupational aspirations. It is important to point out at this stage that a number of unobserved variables are omitted from the model presented below. The omission of a measure of previous educational attainment is likely to have an influence on the models presented below. Based on the international literature above, it is likely that students who had been performing at a low level in junior cycle are more likely to enter vocational type programmes rather than the established Leaving Certificate. That is, this is a likely situation where individuals choose or are advised to take certain actions such as pursue a vocational curriculum based on their unobserved individual characteristics. Unobserved differences among students (as well as imperfect measures of ability) can lead to biased results when considering the effects of curriculum differentiation (Gamoran 1998, Gamoran and Mare 1989) and these issues will be considered later in this chapter but also in later chapters.

5.5 Analytic Strategy and Results

Analytic Strategy

The aim of the analysis was to consider the characteristics of those who participated in each of the different programmes at upper senior cycle, that is, of those who completed either the Leaving Certificate Applied or Leaving Certificate Vocational Programme relative to the Leaving Certificate established. A key aim was to examine whether social class background and gender are reproduced through this particular educational sorting process. The dependent variable consisted of three categories in estimating the probability of having completed LCA or LCVP during senior cycle relative to pursuing the established Leaving Certificate. The number of cases used in this analysis was 1408: all students who completed second level education. The odds of entering and completing one of the upper secondary tracks versus pursuing the established Leaving Certificate was tested using a multilevel multinomial logit model analysis in a conditional form, meaning that it is conditioned by the previous completion of the Junior Certificate and completion of senior cycle. This model is presented in Table 5.5. The analysis was carried out in a random intercept framework in MLWin to consider the influence of individual level and school level factors on the probability of participating in either the LCA or LCVP versus pursing the established Leaving Certificate. In doing so, it considers the natural clustering of the data – students within schools–but also re-estimates the standard errors in a multilevel framework.

Results

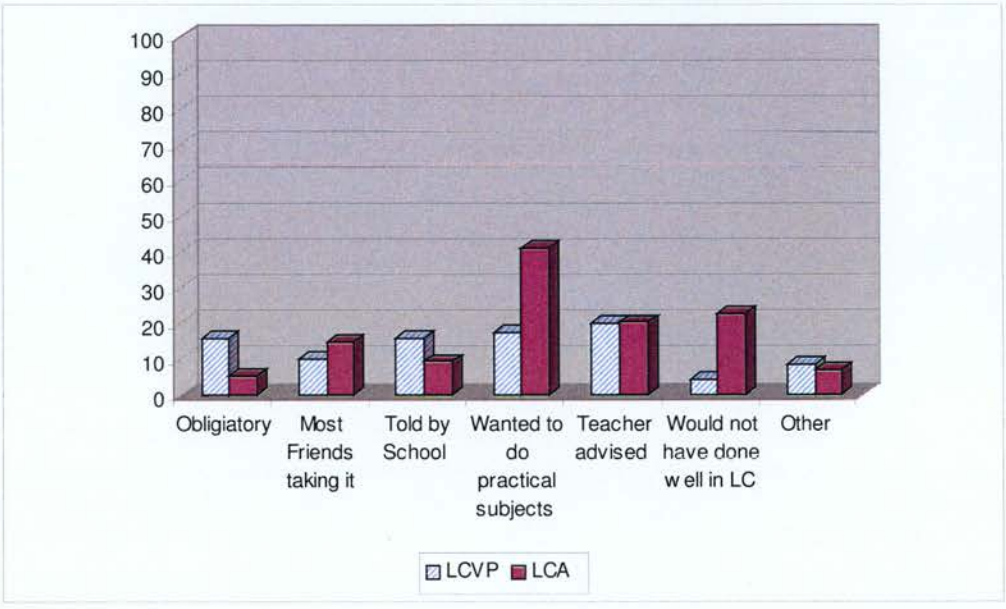
A description of student decisions to enrol in LCA or LCVP

School leavers who were ever enrolled in the Leaving Certificate Applied or the Leaving Certificate Vocational programme were asked '*Why did you decide to enrol in this programme?*' Figure 5.3 illustrates the responses by LCA and LCVP students who completed senior cycle. Because school leavers were asked to circle each of the responses that applied to them, responses do not total to 100%.

For the most part, the items reflected that LCA students were more likely to self-select into the programme, thus indicating that they had greater 'choice' in their decision relative to LCVP students. 40 per cent of LCA students enrolled in the programme because they wanted to do more practical subjects compared to just over 10 per cent of LCVP students. It would seem that LCA students are more likely to pursue the programme because of low academic self-image (they felt that they would not have done well in the Leaving Certificate), or because of their peer group (friends were also opting for the LCA). Some LCA students also mentioned that their decision to take the programme was to avoid the pressure of the established Leaving Certificate, that they did not like to study, they wanted to get out of school more quickly, that they wanted to avoid having to do Transition Year; an extra year of schooling. On a positive note, LCA students indicated that they opted for LCA because of the school organised work experience that is offered.

On the other hand, LCVP students seemed more likely to pursue the programme because it was either compulsory or school policy. For example, 33 per cent of LCVP students who completed senior cycle did not have a choice in enrolling for LCVP due to the school exercising control over their decision and the programme being mandatory. LCVP students were less likely to take the programme because their friends were doing so. The attraction of practical subjects was also less alluring for LCVP than LCA students, which could indicate that Leaving Certificate Vocational Programme students are more academic or motivated than those who pursued the Leaving Certificate Applied. Other reasons cited for participation in the Leaving Certificate Vocational Programme included an incentive to achieve more Leaving Certificate points for entry into higher education (through CAO/CAS); the school organised work experience on offer; and the availability of certain subjects that were offered only in LCVP – most likely being the link modules.

Figure 5.3: Percentage of LCVP and LCA students who selected responses as to why they decided to enrol in the programme



Characteristics of school leavers who completed the LC established, LCA or LCVP

Figure 5.4 illustrates that over 70 per cent of school leavers who completed senior cycle did so having completed the established Leaving Certificate. The characteristics of students who completed each of the programmes are then presented in Table 5.4 on page 128.

Figure 5.4: Distribution of school leavers who completed senior cycle by the programme that was pursued

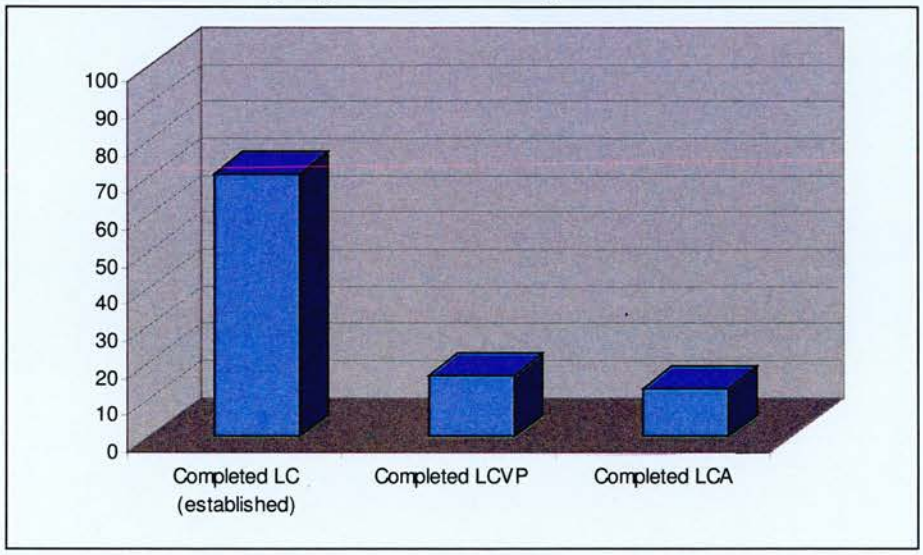


Table 5.4: Senior cycle leavers who completed the LCE, LCVP and LCA according to a range of characteristics

Independent Variables	**Established Leaving Certificate**	**LCVP**	**LCA**
Gender			
Male	72.0 (472)	13.3 (87)	14.8 (97)
Female	69.7 (524)	19.0 (143)	11.3 (85)
Parental social class			
Higher and Lower Professional	79.8 (426)	13.5 (72)	6.7 (36)
Non Manual	67.9 (256)	15.4 (58)	16.7 (63)
Skilled Manual	60.7 (147)	24.0 (58)	15.3 (37)
Semi-Unskilled Manual	59.9 (78)	19.1 (25)	21.4 (28)
Unclassified	71.8 (89)	13.7 (17)	14.5 (18)
Parental Education			
Primary or Less	57.6 (129)	17.4 (39)	25.0 (56)
Junior Certificate	68.1 (222)	16.6 (54)	15.3 (50)
Leaving Certificate	74.0 (313)	16.3 (69)	9.7 (41)
Diploma or Higher	79.8 (285)	14.0 (50)	6.2 (22)
Unclassified	60.3 (47)	23.1 (18)	16.7 (13)
Family Structure			
Two parent household	70.5 (918)	17.0 (221)	12.5 (163)
Single parent household	73.6 (78)	8.5 (9)	17.9 (19)
Household Employment Situation			
Full household employment	71.1 (509)	16.6 (119)	13.6 (94)
Household exposed to unemployment	70.4 (487)	16.0 (111)	12.3 (88)
Number of years at second level			
5 year cycle	66.8 (631)	16.6 (157)	16.5 (156)
6 year cycle	78.7 (365)	15.7 (73)	5.6 (26)
Local Authority Area Deprivation			
High	69.8 (222)	14.2 (45)	16.0 (51)
Medium	66.7 (321)	19.8 (95)	13.5 (65)
Low	73.9 (430)	15.3 (89)	10.8 (63)
School Type Attended			
Secondary	74.9 (499)	15.6 (104)	9.5 (63)
Community/Comprehensive	67.8 (135)	15.6 (31)	16.6 (33)
Vocational	66.7 (362)	17.5 (95)	15.8 (86)
School Gender-Mix			
Single-sex school	76.5 (299)	13.0 (51)	10.5 (41)
Mixed	68.5 (679)	17.6 (179)	13.9 (141)
Socio-mix	3.39	3.17	2.98
N	**996**	**230**	**182**

Are certain characteristics associated with participation in different programmes on offer at senior cycle?

How do individual level and school level characteristics influence completion of different tracks at upper senior cycle? Multivariate results reported in the multilevel multinomial logistic regression model in Table 5.5 address this question, focusing specifically on young people who completed the Junior Certificate and completed senior cycle, thus the model is conditional on completing Junior Certificate and entering and completing senior cycle. Given the finding from Table 5.3 that participation into programmes at senior cycle are influenced by school policy, in this model, we now allow for school effects on the probability of pursuing the Leaving Certificate Vocational Programme versus the established Leaving Certificate and the probability of pursuing the Leaving Certificate Applied versus the established Leaving Certificate.

In this model, we have a two-level hierarchical structure with pupils at level 1 nested within schools at level 2, allowing for the intercept βo to vary randomly across schools. The estimates presented have been obtained using a 2nd order PQL as for multinomial logit models, the 1st order MQL approximation may produce severely biased estimates (Rasbash et al., 2005).

Model 1 of Table 5.5 presents the results of the unconditional model which indicate that the proportion of students in a school who complete the Leaving Certificate Vocational Programme rather than the established Leaving Certificate varies across schools and that the proportion of students who complete the Leaving Certificate Applied rather than the established Leaving Certificate also varies significantly across schools.

Model 2 introduces individual level variables. Consistent with the expectation that placement in vocational type programmes may reproduce gender and socio-economic inequalities; the coefficient for *male* tells us that males are significantly less likely than females to pursue the Leaving Certificate Vocational Programme than the established Leaving Certificate. However the expectation was that females would be more likely to pursue the established Leaving Certificate than males rather than the Leaving Certificate Vocational Programme. Furthermore, it would seem that high socio-economic status is less likely to be associated with participation in either

the LCVP or LCA programmes than the established Leaving Certificate; the coefficient for *skilled and semi-skilled manual background* tells us that school leavers from these backgrounds are significantly more likely than those higher professional backgrounds to pursue the LCVP than the established Leaving Certificate. Furthermore, we see that those from non-manual and semi-skilled manual backgrounds are more likely to pursue the Leaving Certificate Applied compared to those from higher professional backgrounds relative to the established Leaving Certificate. Remember that Table 5.4 indicated that 19 per cent and 21 per cent of young people from semi skilled and unskilled manual backgrounds pursued the LCVP and LCA respectively compared to 13 and 6 per cent of those from professional backgrounds. Further socio-economic differences are evident in relation to parental education, but only in relation to the contrast between those pursing the established Leaving Certificate and the Leaving Certificate Applied; school leavers whose parents have higher levels of education are less likely to complete the Leaving Certificate Applied than the established Leaving Certificate than those who have lower levels of education. The effect of parental education is particularly strong, suggesting that the effect of cultural capital in reproducing class inequalities in education is particularly evident in relation to curriculum differentiation. Furthermore, other educational interventions at second level seem to have an influence; the coefficient for *participation in Transition Year* tells us that school leavers who had participated in Transition Year are significantly less likely than school leavers who had not participated in Transition Year to have pursued and completed the Leaving Certificate Applied than the established Leaving Certificate.

Model 3 then includes school level variables. We now see that the higher the school mean socio-economic background, the less likely school leavers are to complete the Leaving Certificate Vocational Programme or Leaving Certificate Applied relative to the established Leaving Certificate.

A summary of the random effects of the multilevel models shown in Table 5.6. In each of the model for the two contrasts, the estimate of school level variance is large relative to its standard error, suggesting that there is unexplained school-level variation in the probability of pursuing each of the programmes at senior cycle versus the established Leaving Certificate even when these individual level and school level variables are accounted for. The random effect co-variances are all positive indicating that schools with a high or low proportion of students in one programme also tend to have a high (low) proportion of students in another programme. In fact the correlation at the school level between LCA and LCVP provision is moderate at 0.388. What is particularly evident from Table 5.6 is that the amount of between school variance declines for each model that determines the factors which differentiated Leaving Certificate Applied students from the established Leaving Certificate students. However, in the case of the models differentiating those who complete the LCVP relative to the established Leaving Certificate, we see that the between school variance explained in each model is less structured than the previous model.

Table 5.6: Summary of Results (all senior leavers)

	LCVP	LCA
Model 1 Unconditional model	1.493 (.316)*	4.010 (.846)*
Model 2 Individual characteristics	1.477 (.318)*	3.320 (.718)*
Model 3 Individual + School Type	1.571 (.333)*	3.294 (.714)*
Model 4 Individual + School Type + School Gender Mix	1.669 (.348)*	3.142 (.680)*
Model 5 Individual + School Type + School Gender Mix + School Mean SES	1.533 (.330)*	3.018 (.668)*

** Indicates coeff/se >2.*

5.6 Conclusion

While a great deal of research has been conducted on the characteristics of young people who complete second level education and those who drop out of school before completing the Junior Certificate examination (which marks the end of junior cycle), the empirical research on participation in different types of pathways at senior cycle is much more limited, and largely non-existent in the Irish context. Given that a developed body of literature exists in the international context surrounding curriculum differentiation (see for example Oakes 1985; Laureau 2000; Ainsworth and Roscigno 2005) this chapter has addressed the relative lack of knowledge regarding the characteristics of young people pursuing different programmes at upper senior cycle. This chapter has outlined that much less attention has been paid to curriculum differentiation in the past, and the paucity of attention placed on the specific components of programmes, such as work experience, that often form a substantial feature of these programmes. Furthermore, the actual process through which assignment occurs has received even less critical notice in the Irish context. Thus, this chapter contributes to our understanding of both the placement and assignment of young people to different tracks at senior cycle. The key research questions being addressed in this chapter were;

- What are the characteristics of students who complete the LCVP or the LCA versus the established Leaving Certificate? Do participation levels vary across schools?
- How do students who pursue a vocational type route (LCVP, LCA) differ from those who pursue a more academic route (established Leaving Certificate) in relation to individual level and school level characteristics?
- What are the implications for educational inequality?

There is a substantial body of international evidence indicating that participation in vocational type programmes are stratified, with the result that young people from more disadvantaged backgrounds are more likely to participate. These findings are certainly reproduced in these analyses, even when the clustering of the data (students within schools) is taken into account. However, there is also some evidence to suggest that those who pursue the Leaving Certificate Vocational Programme and

those who complete the established Leaving Certificate bear a stronger resemblance to each other than those who complete the Leaving Certificate Applied.

Table 5.5 indicated that gender, parental social class background, family structure and school mean socio-economic intake differentiates those who complete the Leaving Certificate Vocational Programme from those who complete the established Leaving Certificate. Contrary to our expectation, females are more likely than males to pursue the LCVP than the established Leaving Certificate. Students from single parent families are less likely than those with both parents present to pursue LCVP than the established Leaving Certificate. Students attending schools with higher mean socio-economic intake are less likely to pursue the Leaving Certificate Vocational Programme relative to the established Leaving Certificate. However, even when accounting for mean school socio-economic intake, those from lower social class backgrounds, particularly skilled manual backgrounds are more likely than those from higher professional backgrounds to pursue LCVP. These findings report the observed characteristics. However, they are likely to be unobserved characteristics that differentiate LCVP and established Leaving Certificate students. Using longitudinal data Delci and Stern (1999) use NLSY97 data to consider the determinants of participants of a combined academic/vocational programme of study which is theoretically similar to the LCVP. When they consider a range of factors of over time such as demographic composition, course taking patterns, prior academic achievement, educational aspirations, school attendance and participation in career related activities, they find that students in the combined programme are similar to students in the general programme in terms of prior academic achievement and further educational aspirations. The students in the combined programme are more likely to have higher rates of participation in career-related activities. Compared to vocational students, they are also more likely to finish high school and less likely to be absent from school. Furthermore, Zietz and Joshi (2005) consider the academic choice behaviour of high school students. They emphasise that academic aptitude, pre-high school academic performance, and lifetime consumption goals as driven by peer pressure and family background are the most important determinants of programme choice.

Table 5.5 also indicated that parental education, Transition year participation and school mean socio-mix differentiate those who complete the Leaving Certificate Applied from those who complete the established Leaving Certificate. The effect of parental socio-economic background is over-shadowed when school level characteristics are taken into account, particularly school mean socio-economic intake. However, students whose parents have higher levels of education are less likely than those with the lowest levels of education to pursue the Leaving Certificate Applied than the established Leaving Certificate. The strong effect of parental education on track destination indicates some degree of intergenerational mobility but mobility to a 'lower' track rather than a track that is indicative of entry to third level education. While traditional models of human capital investment work on the assumption that education is primarily a matter of individual choice, early educational decisions are likely to be heavily affected by parental socio-economic background. While not considered in this chapter, an important stage in the process is the choice of schools that qualify students for different post secondary education tracks such as university education. Parents with weaker educational backgrounds may be less confident and consider teacher recommendations to a lower track as more binding than parents with higher educational background. Better educated parents may be in a stronger position to extract information about their childs' potential and decide for a higher track despite a negative recommendation from the teacher (Dustmann 2004). This certainly points to the role of parental involvement in the decision making processes at second level, but also parental knowledge and parental value placed on the education system (Byrne and Smyth, forthcoming). Furthermore, as expected, students who completed a three year cycle because of participation in Transition Year are less likely to pursue the LCA than the established Leaving Certificate. As before, students attending schools with higher mean socio-economic intake are less likely to pursue the Leaving Certificate Applied than the established Leaving Certificate.

While a reliable measure of previous educational attainment was not available in the data, it appears that completion of different tracks/programmes at senior cycle are

stratified according to gender, parental education levels, parental social class and Transition Year participation. These patterns of completion would suggest that current allocation principles are in inverse relation to need and curriculum differentiation at senior cycle is more likely to exacerbate rather than mitigate educational inequalities, in line with theories of class allocation. These findings generally support more recent findings in the Irish context which suggest that programme take up is found to vary by gender and socio-economic background, with males being more likely to make the transition straight to a two year cycle than females, and middle class students being more likely to enter into a three year senior cycle than those from semi- or unskilled manual backgrounds (see Smyth et al 2007).

There are however some limitations to these analyses of who gets assigned to tracks. The analyses have relied on cross-sectional data and on a relatively narrow set of prediction criteria. Studies in other institutional contexts have pointed to previous educational achievement as the main criterion of track assignment (for an overview of this literature see Gamoran 1992; Gamoran and Mare 1989; Hossler et al., 1999). For example, Hossler et al., using 9 year longitudinal data of students in Indiana, USA, consider the factors that influence students taking either a college path or not at second level education. They conclude that student decisions that influence participation in a college path are very strongly influenced by support and encouragement from their parents more than family social and economic status. However, higher parental education and a higher previous grade point average were key determinants of pursuing the college pathway. More recent findings in the Irish context have indicated that other factors influence participation into programmes at senior cycle, such as first year reading score and engagement in school work and school life. Furthermore, in these studies LCA entry is most strongly determined by low prior ability and participation in LCA tends to be over-represented among those who experience feelings of disengagement from school in junior cycle (Smyth et al., 2009 forthcoming). Thus, it is necessary to exercise caution about drawing inferences from the models presented in this chapter about the relationship between social class background and track assignment. Without a measure of educational attainment, the effects of class and parental education levels may be over-estimated.

Chapter 6 now moves on to consider the characteristics of school leavers who gain work experience before leaving school.

Chapter 6: Explaining variation in participation in early work experience before leaving school: Who Works, When and What Type?

6. 1 Introduction

This chapter considers participation in early work experiences before leaving school and asks *Who works*? *When do they work?* and *What type of work do they engage in*? Much of the literature on work experience considers work undertaken upon completion of second level education rather than before leaving second level education. For example, in the Irish context, Breen found that job seekers with work experience – experience of working since leaving school - are at an advantage over those seeking a first job at times when the labour market is at its poorest (Breen, 1986). The focus on work experience upon leaving school has been driven by Irish and international studies which consistently find that youth unemployment can lead to long-term unemployment (for example see Nolan and Callan, 1994), and that work experience is of key importance in the transition from unemployment to employment in some countries while education is more important than work experience for others (Russell and O'Connell, 2001)[40]. These findings in themselves offer an interesting start point to consider who it is that gets work experience before leaving school and what types of work experience are on offer. Studies in Ireland and elsewhere indicate that young people who participate in part time job holding during second level seem to experience a smoother transition into the labour market, but in-depth explanations as to why this should be are unclear. The literature points to the importance of access to work experience before leaving school for particular social groups. For example, Entwisle et al., (2000) in New Zealand argues that while denied access to work experience before leaving school may have a relatively minor influence on the life course patterns of middle class students, such a constraint may play a substantial role in shaping the careers of disadvantaged or minority youth, because for them the long term labour market advantage conferred by work experience in the teenage years could be substantial. This point is also expressed across institutional contexts. For example, in America, Tienda and Stier (1996) empirically demonstrate that for inner city residents with low levels of education, job experience in adolescence is an

[40] Ireland was found to be in the middle group in terms of the rates of transition from unemployment to employment among young people in the early 1990s.

important source of human capital that increases the likelihood of subsequent employment. That is, holding a first job offers an advantage in obtaining the next one, so students who start work early in life can build up more job experience than those who start later. If work experience undertaken before leaving school does confer benefits, then it is important to consider the characteristics of those who gain such experience and to consider any 'work history' that young people may have accumulated before leaving school.

In addressing these issues, this chapter begins by considering *who works*, *when do they work* and *what type of work* they are engaged in. In doing so, it aims to consider the characteristics of those who participate in early work experiences before leaving school relative to those who do not. A second aim of this chapter is to address the issue of early work experience from a dynamic approach – that is, it considers the accumulation of previous work experience on future/current participation in work experience. The specific research questions are outlined as follows;

- What is the incidence and prevalence of early work experiences undertaken during second level education?
- How do young people who have part time jobs during second level differ from those who do not? What factors are significant in determining whether a young person attending full time second level education decides to work part time or not? Is there a set of characteristics that distinguish the group of 'workers' from the group of 'non-workers'? Does the proportion of students with a part time job vary across schools?
- What are the characteristics of those who have part time jobs at different stages of second level education? Do young people who work in junior cycle have the same characteristics of young people who work in senior cycle? Do young people who work in important examination years have the same characteristics as those who do not work in those years? Does the proportion of students with a part time job in a particular year vary across schools?
- How do young people who participate in a school organised work experience as part of a programme at senior cycle differ from those who do not

participate in the school organised work experience but who are in the programme? Are there a set of characteristics that distinguish these type of 'workers' from the group of 'non-workers'? Does the proportion of students with a school organised work experience vary across schools?

- Finally, how do young people who have experience from a part time job differ from those who have experience from a school organised work experience? Does this vary across schools? Is it likely that work experience offered by the school (SCHWK) provides access to the world of work for those who do not have access to part time jobs?

The general aim is to identify among a representative sample of school leavers, whether young people who work differ from those who do not according to characteristics such as gender and socio-economic background characteristics (parental social class, parental employment, parental education levels and family structure) as well school and local area characteristics. In doing so, this chapter considers four aspects of early work experiences that have been neglected in prior research. Firstly, I broaden an examination of early work experiences to include participation in school organised work experiences alongside participation in part time jobs during term time. This is an important extension now that work experience is provided as part of the curriculum as a device to counteract educational disadvantage. Comparing the characteristics of young people who participate in school organised work experiences rather than part time jobs has implications for theoretical arguments regarding how inequalities are produced through the education system. Secondly, in addition to considering the characteristics of school leavers who have ever held a part time job during second level education, the characteristics of those who held a part time job at different stages of second level education are considered. That is, the timing of when the part time job was undertaken during second level is also given attention in order to consider how part time job patterns evolve and to consider who works at each stage of second level education. Thirdly, as well as school level characteristics, other contextual variables are used including a measure of socio-economic deprivation for the local area in which the school leaver lives, thus providing a more detailed regional dimension to the study of early work

experiences than what has been used before. Finally, I evaluate the relative merits of structural and individual explanations for participation in early work experience before leaving school, while appraising the persistence of family background factors in shaping participation in early work experience before leaving school.

This chapter is set out as follows. Section 6.2 provides an overview of the different types of early work experiences that young people participate in. Section 6.3 then provides a literature review to help explain variation in the uptake of early work experiences. The data, variables and analytic strategy are outlined in Section 6.4. Section 6.5 presents the results in five parts. Section 6.5.1 provides some descriptive results. Section 6.5.2 provides multivariate analyses of participation in part time job holding. Section 6.5.3 provides descriptive and multivariate results of when part time jobs are held during second level education. Section 6.5.4 then considers participation in school organised work experiences. Finally Section 6.5.5 considers how those with different types of work experiences differ from each other. A summary of results is then provided in Section 6.6.

6.2 An overview of early work experience in the Irish context

This section provides an overview of early work experience in the Irish context, paying attention to both school organised work experience and part time job holding.

School organised work experience

This section provides an overview of the organisation of school organised work experience provided as part of the Leaving Certificate Applied, Leaving Certificate Vocational and Transition Year programmes. After a brief discussion of the aims and philosophy of work experience as part of these programmes, a summary of the different elements of school organised work experience according to each programme are given in Table 6.1.

Work Experience in Leaving Certificate Applied

Work experience represents a significant component of the Leaving Certificate Applied relative to the work experience component of Transition Year and Leaving Certificate Vocational Programme, and is incorporated as part of the

Vocational Preparation and Guidance module which is allocated 240 hours (30 per cent of total time allocation) over two years. Thus, LCA students can spend up to half of this time on work experience over four 'sessions' or four six-month periods, representing the total duration of the programme. As part of the compulsory module of vocational preparation and guidance, students are required to partake in modules relating to career guidance, job search, two modules of work experience and two modules of enterprise education. Therefore, LCA candidates take part in at least two and possibly four work experience placements, depending on the modules that students select. LCA students can also return to a work experience placement if they find that any additional learning outcomes are on offer. In all, the work experience module consists of three sub-modules; (1) preparation and briefing prior to the work experience, (2) the actual work experience in the workplace, and (3) a debriefing on completion of the work experience. The work experience module is assessed and credited upon satisfactory completion, which then forms part of the assessment process for LCA alongside the performance of student tasks and performance in the terminal examinations[41].

There are, however, discrepancies between policy and practice in relation to LCA work experience and research indicates that the nature of provision of LCA work experience differs across schools, particularly in relation to the time allocated to work experience[42]. It would seem from Department of Education and Science (DES) documentation that the LCA work experience is very structured in terms of preparation and follow-up, where students are given the opportunity to experience a range of careers, but actual knowledge pertaining to the relationship between policy and practice is limited. Furthermore, guidelines from the DES suggest that a number of sessions of work experience '*contribute to the development of skills and qualities across workplaces...with a formal progression from one work experience placement*

[41] All of these then combine to give the overall 'score' of the LCA (Pass, Merit, Distinction or Record of Experience) and students obtain a Leaving Certificate from the State Examinations Commission.
[42] A DES Inspectorate report found that time allocation to work experience was less than recommended in one fifth of schools providing the LCA programme.

to another'. However a definition of the type of skills developed as part of the LCA work experience does not exist[43].

Despite the emphasis on work experience as a strategy to combat educational disadvantage as part of the LCA programme, no comprehensive evaluation of the Leaving Certificate Applied has been carried out to date. To date, academic commentaries rather than systematic evaluation[44] exist (for example see Tuohy and Doyle 1994; Bray 1996; Gleeson and Granville 1996; Gleeson 1998). Such commentaries generally raise concerns about the 'ring-fenced' nature of the programme (Gleeson and Granville 1996). Tuohy and Doyle (1994) have acknowledged that the programme shows '*an admirable concern to cater for all students*' but also express concern that the programme is subject to student and parent scepticism and the likelihood that it could further rather than reduce inequality. However, research has tended not to consider the work experience component of these programmes. This thesis will contribute knowledge of the 'value added' of school organised work experience by considering who partakes in such work experiences and their subsequent outcomes.

Work Experience in Leaving Certificate Vocational Programme (LCVP)

Work experience is also a third link module of the Leaving Certificate Vocational Programme provided through the world of work module. All LCVP students who participate in the world of work module are required to participate in a work experience or work shadowing for a minimum of five days, as well as partake in 'career investigation'. The link modules are treated as a unit for assessment purposes and grades are awarded. Assessment is at two levels, and comprise of two elements: a terminal examination paper and a portfolio of coursework. Work experience is assessed as part of the portfolio of coursework - which accounts for 60% of the total marks awarded for the link modules - and is developed over the two

[43] Furthermore, without access to the work experience diaries completed by young people engaged in LCA, we cannot examine student perceptions of the skills developed from LCA or consider whether progression from one work placement to another actually occurs.

[44] At the time of writing, I have now become part of a team of researchers at the ESRI (www.esri.ie) who will undertake an evaluation of LCA that has been commissioned by the Department of Education.

years of the programme and submitted at the end of the final year of the LCVP[45]. A diary or report relating to work experience forms part of each LCVP student's portfolio. The Department of Education and Science through the State Examination Commission (SEC) certifies work experience undertaken as part of the LCVP programme.

Little is know about employers' perceptions of school organised work experience. McKenna and O'Maolmhuire report that employers in certain sectors perceive LCVP work experience to be of little benefit to students and that there is little support for work experience. However, they also report that there is a preference from employers to provide a more defined work experience. For example, employers in high technology industries report that they can provide a challenging and beneficial work experience to the student (McKenna and O'Maolmhuire 2000). Furthermore, employers of traditional industries report that the work experience they provide is of little benefit to students, expressing a preference for work experience to be implemented at third level rather than during second level education.

Transition Year Work Experience

Transition Year has been designed to give young people aged 14-16 a taste of the world of work and has retained its element of work experience as part of the programme since its inception in the 1970s (Doyle, 1990). The aims of Transition Year school organised work experience (TYSCHWK) to offer an alternative learning environment and provide an orientation to the world of work are clearly outlined in the DES guidelines for Transition Year;

> *It is intended that the Transition Year should create opportunities to vary the learning environment and to dispel the notion that learning is something that happens only, or even most effectively, within the classroom. One of the ways of doing this, and of providing an orientation towards the world of work is to include a component of actual work experience.*

The guidelines for Transition Year acknowledge that a shortage of work experience placements for senior cycle students may occur because of the proliferation of work

[45] The portfolio requires students to submit 6 pieces of work, prepared according to specific criteria, which provide evidence that they have participated in and learned from a variety of activities organised as part of the Link Modules.

experience as part of the senior cycle curriculum and so advocate a 'softer' approach to school organised work experience giving priority to work experience for LCA and LCVP students. That is, where a paucity of work experience placement does exist, the Government strategy is to prioritise placements in favour of vocational programmes in the senior cycle; the LCVP and the LCA programmes. In these circumstances, work experience should still occur, but take the form of work simulation and/or work shadowing for the purposes of Transition Year. The guidelines acknowledge that it is important that both pupils and prospective employers should be fully briefed about what is involved, and that pupils and teachers/tutors should be adequately covered by insurance for the particular situation in question. In order that pupils may obtain maximum benefit from their work experience, the guidelines also recommend allowing sufficient time and opportunity after each work period for de-briefing, reporting back and follow-up exercises to encourage reflection about their experiences.

Young peoples' experiences of Transition Year school organised work experience have been found to vary greatly within schools and between schools. Previous research carried out by this author has found that the nature of work experience varies in duration and quality, with some students participating in work experience or work placements which closely resemble part time jobs rather than using the experience to engage in 'career sampling' (Smyth, Byrne and Hannan 2004). The research also indicated that the format and nature of the work experience was found to vary from school to school, resulting in different work experiences being categorised as 'work placements' 'work simulations' or 'career investigations' which generally were linked to the actual duration of the work experience, or the period of time over which young people participated in work experience - block release from school or release for one day a week for a number of weeks.

Rates of participation in Transition Year (TY) school organised work experience are quite high - 79 per cent of those who have participated in TY have had a period of work experience at some stage (own calculations based on SLS03). Smyth et al., (2004b) indicate that some schools offer work experience only for some select students while other schools do not offer Transition Year experience to any of their students. The established literature offers an insight into how selection of

students for school organised work experience may arise. Reasons for not offering a Transition Year school organised work experience included (1) a lack of available places for student work experiences, that is, an oversupply in demand and subsequent lack of supply for work experience positions, (2) individual personal choice not to participate, and (3) school selection - students being excluded from participation due to behavioural problems (Smyth, Byrne and Hannan 2004) or schools deeming work experience as unimportant as part of the curricula (McKenna and O'Maolmhuire 2000)[46].

In all, the literature on school organised work experience is small and to date little research in Ireland has considered school organised work experience. Furthermore, while studies in the UK have considered school organised work experience (Shilling, 1991; Saunders et al., 1997), little research has considered the determinants of participating in a school organised work experience.

Table 6.1: Overview of programmes offering work experience

	TY	LCA	LCVP	Leaving Certificate
Work Experience on offer	Yes	Yes	Yes	No
Work Experience compulsory	No	Yes	Yes	_
Average Duration of SCHWK	5 days	30 days	5 days	_
Certified work experience	No	Yes	Yes[47]	_
Paid work experience	No	No	No	_
Work experience assessed	No	Yes	Yes	_
Aims in relation to work experience	Introduction to the World of work	No Specific Aims	No Specific Aims	_

Part time job holding

Studies of part time job holding among students in the Republic of Ireland are still in their infancy. To date, few studies have considered the work activities of young

[46] On this note, work experience was more likely to be provided for all students in schools where TY was optional rather than were TY was compulsory (Smyth et al 2004). Of course, certain schools were more likely to offer the programme on a compulsory basis than an optional basis.

[47] Work experience is assessed through the portfolio of course work which accounts for 605 of the total marks awarded for the Link Modules. In 1996 12 per cent of students failed the link modules assessment, this had fallen to 4 per cent in 1997.

people while still in school with the exception of Morgan (2000), McCoy and Smyth (2004a) and Stack (1998, 2001). Unlike other institutional contexts, long term trends of part time job holding are unknown. However, the literature suggests that the prevalence of part time job holding grows among young people as they move through the second level education system and point to marked differences between males and females.

6.3 Literature review and theoretical orientations

In order to consider the characteristics of school leavers who do and who do not participate in early work experiences before leaving school, we turn briefly to some empirical findings and theoretical concepts in the literature. Many factors are likely to explain why some young people in full time education work in part-time jobs and others do not. The literature pointing to differences in participation in part time job holding arise from three broad perspectives. Firstly, individual level explanations tend to focus on variables such as gender and other 'observable' individual characteristics of young people, but also to other 'unobservable' individual characteristics relating to ability, individual agency and aspirations such as the subjective career strategy arguments used by Willis (1977) and McDowell (2002). The second explanation lies in human capital and social capital approaches, placing emphasis on parental involvement in the transmission of their own social capital to their sons/daughters human capital. Finally, contagion theories and theories of collective action, place emphasis on the regional/spatial dimension within which work activities take place. In such studies, participation in term time jobs can be seen in terms of demand and supply or push and pull factors (Kalachek 1969, 1973) both in relation to the number of young people looking for work experience placements and the general economic conditions of the time. These perspectives will now be discussed in more depth.

Individual level characteristics: Gender, Ability and Individual agency

Gender is a dominant theme in the literature, and studies indicate that males are more likely to have a part time job and work more intensively than females (D'Amico 1984, Hotz et al. 2003, Keithly & Deseran 1995, Marsh 1991, Morgan

2000, Mortimer 2003, Mortimer et al. 1996, Steinberg 1982, Warren & Lee 2003). Prior studies have indicated that boys begin to work at younger ages than girls both in Ireland (McCoy & Smyth 2004) and internationally (Greenberger & Steinberg 1983, Steinberg and Greenberger 1986). These findings suggest that males are likely to enter the labour market earlier than females but also work more intensively than females. For example, McCoy and Smyth (2004) found that males are more likely to hold a part time job in junior cycle, and work more extensively than females.

The gendered nature of part time job holding at the earlier stages of second level education - during junior cycle - is particularly interesting given the plethora of research which indicates that males are more likely to leave school earlier and under-perform academically than their female counterparts in the Irish context. There is some evidence to suggest that the early work behaviour of males in junior cycle is associated with measures of prior ability. However, no such association is evident for the work behaviour of females. For example, McCoy and Smyth (2004) using data from the Schools Database[48] found that male Junior Certificate students (3rd year students) who had demonstrated higher prior ability (combined verbal reasoning and numeric ability scores VRNA) were less likely to have had a part time job than other males, all else being equal. The association between academic 'ability' and part time job holding has also been found in other contexts, but with contrasting findings. Dustmann et al., (1996) using data from the UK National Child Development Study found that measured ability at age 11 has a significant and positive effect on whether 16 year olds have a part time job. Those in the bottom quartile of ability at age 11 were significantly less likely to have a part time job than those in higher quartiles[49]. However, it is unknown whether this effect differed for males and for females.

While rates of part time job holding are high among males and females in senior cycle, Irish research suggests that females are somewhat more likely to hold a part time job at this stage than males. Again, there is some evidence to suggest that the work behaviour of both males and females at senior cycle is associated with measures of previous educational performance. Continuing with the Schools Database, McCoy and Smyth (2004a) found that among Leaving Certificate students

[48] The Schools Database was developed in 1994 and consists of a survey of pupils in schools.
[49] However, it should be noted that no significant difference was found between the ability effects for those in the second, third and fourth quartiles.

(6th year students), students who achieved higher educational performance in the Junior Certificate were less likely to have a part time job in 6th year than other students, and this was true for both males and females. However, again producing contrasting findings, in the Northern Irish context, McVicar and McKee (2001) found evidence that academically able young people are over-represented among part time workers. Furthermore, Singh (1998) using longitudinal data, found that students with high prior achievement were less likely to work longer hours, while students with low prior achievement were more likely to work longer hours.

The relationship between ability and part time job holding suggests that individual decisions to seek and gain part time employment during term time may be governed by a perception of the benefits and costs involved (Dustmann et al., 1996) and that this may vary by gender, particularly among younger males. The benefits may come from the income earned from part time job holding, or the beneficial work experience and contact made with employers. On the other hand, there may be a risk that part time work might reduce the amount of attention that can be devoted to school and the achievement of a 'good' second level qualification. It is likely that the balance of these effects will vary widely across individuals; some young people may have a particularly strong preference for earning money, others may place value on the contact with employers, while others may prefer to focus on their school work alone. There are many examples of how these decisions may be played out in the literature. For example, one could argue that males of lower ability who work in 3rd year, an important year for their education are constructing for themselves a developing sense of a male worker, possibly a working class male worker as was demonstrated in the 'subjective career strategy argument' of McDowell (2002:157, 2003); Willis (1977) and Bates (1984). Contributing to the notion of part time workers as 'planners' and building a career strategy, McCoy and Smyth (2004) report that working students in 6th year are more likely than non working students to indicate that they are likely to look for a job immediately upon leaving school or enter an apprenticeship or other vocational training, but are less likely to aspire to go on to third level education. Furthermore, Warren (2002) finds that student employment behaviours differ by students' perceptions of the relative role and future importance of schooling and paid employment in their lives.

This suggests that young people who have part time jobs during second level may be different from those who do not in terms of their educational and occupational aspirations. Irish research to date suggests that student educational aspirations differ according to whether young people had or had not worked in part time jobs. McCoy and Smyth (2004) found that among both junior cycle and senior cycle students, those with a part time job were found to have significantly lower educational aspirations and differed in their experiences of and orientation towards school than those who were not working[50]. Furthermore, Morgan (2002) reports that the majority of young people living in a specific disadvantaged area in Dublin who had a part time job see it as a positive construct both in the short and long term, and that it offers independence and enhances the chances of getting work in the future. While McCoy and Smyth (2004) find that junior cycle working students (younger) display somewhat higher levels of positive interaction with teachers than their counterparts and are more likely to agree with the statement 'for the most part school life is a happy one for me'[51], they also have poorer attendance records than non-working students (McCoy and Smyth 2004) a finding which is replicated in international studies. However, it is unlikely that individual decisions are always going to be well informed or that decisions to hold a part time job are individual choices and it is generally assumed in the literature that social, school and family pressures may also play an important role (see for example Keithly and Deseran 1995; Dustmann et al., 1996). The next section considers the role of parental socio-economic characteristics.

Intergenerational transmission of social capital in the formation of human capital

Differences in early work behaviour could be explained by differences in how parental social capital is used to produce a young persons' human capital. A theoretical proposition in this thesis posits that experiences that enhance the acquisition of human capital in youth, and those which may impart other forms of capital, may increasingly matter for future attainment and well being, particularly for

[50] However, these analyse were descriptive rather than multivariate and the analyses did not extend to differentiate between the actual timing of the part time job in relation to the educational cycle.
[51] However, this was not the case for young people who left school during or having completed senior cycle.

some social groups as was outlined in the introduction of this chapter. Coleman's notion of social capital is useful in this context as it provides a conceptual link between the attributes of individual actors and their immediate social contexts most notably the household, the school and the neighbourhood in which they live. Coleman (1994) argues that parents invest social capital into the formation of their children's human capital. This investment occurs by applying the social and financial resources of adults towards the development of productive skills in children and young people. He describes it as '*the investment of the social and financial capital of one generation toward the creation of human capital in the next generation*' (Coleman 1994:36). In line with this theoretical perspective, a range of parental socio-economic characteristics have been found to correlate with part time job holding at second level across institutional contexts. P*arental socio-economic background* is found to correlate with part time job holding during term time across institutional contexts (Hotz et al., 2003, Keithly & Deseran 1995, Dustmann et al., 1996; McCoy & Smyth 2004) and is likely to capture a wide range of influences. A review of the literature produces different findings in relation to the effect of parental socio-economic background. Studies report conflicting findings regarding parental social class as a determinant of part time job holding. On the one hand, some studies find that higher social class youth are more likely to work (McVicar and McKee 2001; Schill et al., 1985). However, McCoy and Smyth (2004) find that at Junior Certificate level, there is no systematic variation by social class background in employment participation but that participation in part time employment is lower among those from professional class backgrounds than for those from a working class background. Different finings are likely to be due to the different definition of both part time job holding and of different classifications of social class background across studies. Other studies focus on the influence of family income or parental employment situation. Micklewright et al., (1994) find that the effect of household income on part time employment is insignificant; other things being equal, children from poor households do not appear to be more likely to have a part time job than children from households with higher incomes. Others argue that levels of term time working are higher among those living in 'work rich' households (households with employment) rather than work poor households, or household exposed to

unemployment. In the UK Dustmann et al., (1996) find that part time work tends to be substantially higher where a father is in employment. While having a mother in employment also increases the probability of having a part time job, the effect is smaller. Studies regard the influence of household parental employment on young people's employment during school as both a socialisation effect and a 'network' effect as a means of obtaining access to employment. In this regard Mizen et al., (1999:430) suggest that employment in Britain has become characterised by a polarisation between work rich and work poor families. They speculate that

> *'children working largely in sectors of the economy notorious for informal recruitment procedures and a high turnover of labour, the absence of a parent or older sibling to ask around, 'put a good word in' or keep and eye out' for a vacancy is likely to constitute a real barrier to work'.*

This would suggest that parental influence is linked to contact with the labour market rather than financial pressures resulting from parental unemployment. Based on these findings we expect that differences in young peoples' socio-economic background will account for differences in the uptake of part time employment. Furthermore, we expect that the influence of family socio-economic background will be greatest in terms of household employment rather than parental social class.

Linked to parental capital, the type of school attended is also likely to have an influence on the probability of having a part time job. School type is likely to demonstrate both a social class effect but also a peer influence effect. Little research has been conducted on part time job holding and school type in the Republic of Ireland. Part time job holding may also differ across schools in relation to school policy or because of the curriculum that is implemented. In the UK, Dustmann et al., (1996) found that young people attending independent, single-sex or special schools were less likely to have a part time job at age 16. These findings are derived from studies outside the Republic of Ireland, as the school context in which young people attend has largely been absent from studies of young peoples work behaviour before leaving school. This chapter aims to address this deficit and considers two main questions. Firstly, does the prevalence of part time job holding vary across schools? and secondly, what school level variables affect participation in early work experience? We expect that an effect of school type is likely to exert an influence on

part time job holding and that young people attending second level schools are less likely to have a part time job than those attending either community/comprehensive or vocational schools, because secondary schools tend to be attract students who are from higher social class backgrounds than vocational or community/comprehensive schools.

Regional level variation in the uptake of early work experience

Amongst the possible determinants of part time job holding while in second level education, there may be also be influences on the demand side of the labour market (Dustmann et al., 1996; Kalachek 1969, 1973). On the demand side, the availability of suitable jobs for teenagers in education may be affected by

(1) the state of the local labour market: in areas of high unemployment or high socio-economic deprivation, the demand for teenage labour may be low

(2) the sectoral structure of local employment; part time work tends to be concentrated in certain sectors such as retail, hotels and catering and demand for teenage labour will be higher in areas where these sectors are important

(3) the substitutability of part time teenage labour for other types of labour: growing flexibility in employment patterns may have increased the opportunity for teenage labour to displace other workers.

A number of studies have examined regional variation in the uptake of early work experience, particularly in relation to part time job holding. In their study Daly and Leonard (2002) find that only 1 in 7 children in a deprived area of Dublin have access to some form of part time work, indicating that children from poor areas are less likely to work part time due to a lack of job opportunities locally, replicating findings in other institutional contexts (see for example Hobbs and McKechnie 1997; Leonard 1998)[52]. Using the measure of local area deprivation we can test the hypotheses regarding an effect of the area. That is, in areas of high unemployment or high socio-economic deprivation, the demand for part time job holding among students may be low and so we expect that uptake of part time job holding is lower in

[52] Daly and Leonard also report that the average earnings of children who have access to some form of paid work is small, but that it may make a difference to the overall well-being of a family when income is low, as half of the working children transferred a portion of their earnings to the household. However, McCoy and Smyth (2004a) find that just 3% of young people who worked spent 'quite a lot' of their income on the family budget.

these areas. The literature also points to other regional characteristics other than economic conditions, which are associated with young people's early work experiences before leaving school. Internationally, sociologists hold that neighbourhoods are commonly believed to influence behaviour, attitudes, values and opportunities (Brooks-Gunn et al; 1993). Theoretically 'contagion' theories and theories of collective action predict that affluent neighbourhoods confer benefits on children, especially low income children, while competitive and relative deprivation theories lead to the opposite prediction (Jenks and Mayer 1989). It should be noted that these findings are derived from studies outside the Republic of Ireland, as the local context in which young people live has largely been absent from studies of young peoples work behaviour before leaving school. This chapter aims to address this deficit and considers two main questions. Firstly, does the measure of local area socio-economic deprivation influence young peoples early work decisions? and secondly, does a local area effect hold when holding constant other variables?

Hypotheses

The hypotheses about participation in early work experiences can be summarised as follows:

- Males are more likely to have part time jobs than females.
- the influence of family socio-economic background will be greatest in terms of household employment rather than parental social class.
- in areas of high unemployment or high socio-economic deprivation, the demand for part time job holding among secondary school students may be low and so we expect that uptake of part time job holding is lower for these students.

6.4 Data, Variables and Analytic Strategy

Data

I address whether inequalities in access to early work experiences exist using the SLS03. The dataset is well suited for investigating who participates in early work

experiences, as it asks about part time jobs undertaken in second level education and school organised work experiences undertaken in senior cycle. School organised work experience is defined as work experience undertaken as part of a programme at senior cycle – that is, as part of Transition Year, the Leaving Certificate Applied or the Leaving Certificate Vocational Programme. In addition, the data offers information on whether school leavers ever held a part time job during term time in each of the academic years of second level education. This facilitates a work history approach among those who have completed second level education, from the time formal schooling in second level education began. Therefore, the study focuses on work undertaken between 1995/96 or 1996/97 and 2000/01, depending on whether Transition Year was undertaken.

Measurement of Variables and Analytic Strategy

Dependent Variables: Who works? When do they work and what type of work?

The multivariate analyses are carried out in three stages, and this chapter utilises a number of dependent variables in order to answer the research questions outlined above.

The first set of dependent variables that are used, relate to both participation in and the timing of part time job(s) during term time at any stage of second level education. The first dependent variable is derived from the question '*Thinking back to when you were in school could you tell me whether or not you held a part-time job or jobs during term time while you were still in school*?'. Using this dependent variable to distinguish the characteristics of those who have term time jobs and those who do not, multilevel binary logistic regression analyses are carried out separately for junior cycle leavers and senior cycle leavers to determine participation in part time jobs in junior and senior cycle.

The further dependent variable is based on information on participation in part time jobs during term time between 1st and 6th year (ages 12-17). That is, part time job status was derived for six separate time periods – 1st year, 2nd year, 3rd year, Transition Year, 5th year and 6th year. For this set of analyses, a series of six multilevel binary logistic regression models are used to examine the characteristics

of school leavers who held part time jobs in 1st year, 2nd year, 3rd year, 5th year and 6th year, to consider the timing of when the part time job took place, and whether the characteristics of part time job-holders change according to when the term time job is carried out

The second set of dependent variables considers the uptake of school organised work experience among senior cycle leavers. Three multilevel binary logistic regression models are used to examine (1) the characteristics of Transition Year participants who held a school organised work experience in Transition Year, (2) the characteristics of Leaving Certificate Applied participants who held a school organised work experience in LCA and (3) the characteristics of Leaving Certificate Vocational participants who held a school organised work experience in LCVP. Each of these sets of analyses considers previous part time jobs held during junior cycle as well as any previous school organised work experiences.

The final dependent variable used classifies senior cycle leavers according to the work experiences they have acquired before leaving school. The aim of the analysis is to examine the distribution of early work experiences across senior cycle leavers. In this case, a multilevel multinomial logit regression model is used and the dependent variable is a discrete four-category variable indicating the type of early work experience acquired during senior cycle. That is, (1) No work experience (reference), (2) Part time job and school organised work experience, (3) part time job only, and (4) school organised work experience only.

Independent Variables

Individual and Socio-economic Background

As in the previous chapter, independent variables include gender, and a range of socio-economic background variables. These include parental social class, highest level of parental education, household employment situation and family structure (number of parents present). Particular interest is paid to how these socio-economic background variables relate to the acquisition of early work experiences. Parental

socio-economic background variables are regarded to be important controls in this set of analyses because they allow an examination of whether different types of early work experiences are related to parental perceptions of the merit of part time job holding and parental employment networks. In addition to these variables, previous work experiences undertaken in the form of part time jobs or school organised work experience are considered when appropriate. As before a measure of socio-economic deprivation of the local authority area in which the student lives was included in the models and added as a set of dummy variables.

School level variables

As in the previous chapter, the school type that the school leaver attended before leaving school is used and is presented in the form of two dummy variables variable (vocational, community/comprehensive) with secondary school as the reference category. In addition two other school level variables were identified from the dataset: gender-mix of the school (mixed, single-sex) measured as a binary variable, and average socio-economic mix of the school, which was measured as a continuous variable.

Controls not included in the models

Although the combined data set provides a rich set of individual, socio-economic background, school and local area characteristics, my empirical work does not include a number of intervening measures such as prior ability or a prior educational achievement control, or a measure of educational expectations known to have an influence on uptake of early work experiences. Thus, the goal of the analyses are to establish which observed characteristics have the strongest association with early work behaviours, but also to recognise that there may be some unobserved characteristics which influence participation in early work experiences, and to discuss the implications of the omission of such variables.

Modelling strategy used

Each empirical section begins by offering a descriptive analysis of the distribution of early work experience according to a range of individual and school level

characteristics. The influence of these factors combined on early work behaviour are examined through multilevel multivariate analyses. The regression models were developed by considering the potential predictor variables using bivariate methods of analysis. This was achieved with a contingency table of outcome (y=0,1) versus the *k* levels of the independent variable, and variables that were significantly associated with the probability of having a job at the value p<.25 were included in the fitting model process (as recommended by Hosmer & Lemeshow 2000). It is important to note also that other variables that were deemed important through a review of the literature, or through intuition, were also included in the models. Upon completion of the bi-variate analyses[53], variables were selected for the multivariate analyses to examine the importance of each in predicting the probability of the outcome variable. The multivariate analyses are presented in random intercept/variance components framework modelled in Mlwin. The findings are produced in this way to allow for robust standard errors that take account of the clustering in the sampling frame but also to allow the probability of the outcome to vary across schools. Furthermore, the analyses considers junior cycle leavers and senior cycle leavers separately in an attempt to compare like with like.

6.5 Results

6.5.1 A Description of Early Work Experiences Undertaken by young people before Leaving Second Level Education

This section begins by providing an overview of early work experiences undertaken by young people before leaving second level education. In doing so, a typology of early work experiences has been derived.

Typology of early work experiences

The typology of early work experiences undertaken here differs greatly from those in other studies of early work experience before leaving school. While studies to date have generally focused on participation in part time jobs held during term time as the only work experience that young people attain before leaving school, this study takes

[53] Bivariate analyses included correlations to test for collinearity.

into account school organised work experiences; that is, work experience undertaken as part of the curriculum, as well as part time jobs. In fact, no studies to date in the Irish context have examined the possible combination of different types of work experiences that young people may engage in before leaving school. Because work experience before leaving school constitutes a key independent variable in the remaining chapters of this dissertation, it was deemed appropriate to categorise the school leavers according to the stage they left school. In doing so, school leavers have been categorised into two groups – those who left school during junior cycle and those who left school during senior cycle – in an attempt to control for selection bias relating to educational attainment. This is particularly important for this study because unlike in the UK and the USA, school organised work experiences occur in senior cycle only, while part time employment can be gained from any stage (but legally from over the age of 16).

Table 6.2: Uptake of early work experiences by gender and highest cycle entered into (but not necessarily completed)

Stage left school	Type of work experience	Male	Female	Total
Junior Cycle Leavers	PTJ	35.8	20.8	31.1
	None	64.2	79.2	68.9
N				627
Senior cycle leavers	PTJ & SCHWK	30.9	28.1	29.5
	SCHWK	16.1	12.8	14.4
	PTJ	28.8	33.7	31.3
	None	24.1	25.5	24.8
N				1677

The typology is shown in Table 6.2 above and categorises junior cycle leavers into those who have and have not had experience of a part time job(s) before leaving school. In all 69 per cent of young people who left school either before or upon completion of the Junior Certificate examination did not participate in a term time job. Senior cycle leavers have been categorised into four groups (1) those who have had experience of both part time job(s) and school organised work experience, (2) those who have had school organised work experience only, (3) those who have had

part time jobs only and (4) finally, those who have left school without any work experience at all[54].

For senior cycle leavers, the proportion leaving school without any work experience is much smaller at 25 per cent. Among senior cycle leavers, just over a quarter had experience of both a term time job and a school organised work experience (SCHWK). While statistically there was not a significant relationship between the different types of early work experiences undertaken among senior cycle males and females, among junior cycle leavers, males were more likely to have left school with experience of a part time job than females. Before considering the typology in more depth, the next section considers the prevalence of part time job holding among junior and senior cycle leavers.

Part time job holding

It is well known that part time job holding is a common activity among Irish school leavers (see prior studies by Morgan 2000; McCoy and Smyth 2004) and these findings are replicated in this study using the SLS03 data. Table 6.3 shows that 53 per cent of all school leavers left school with experience of a part time job(s) during term time, with a slightly higher proportion of females overall than males having experience of a part time job[55]. Part time job holding was higher among senior cycle leavers than junior cycle leavers; 31 per cent compared to 61 percent respectively. Thus, the data also replicates findings from previous studies of part time working (McCoy and Smyth 2004) indicating that the proportion working during term time increases as young people move through the second level education system: it would seem that as the number of years spent in second level education increases, so too does the proportion of the cohort with experience of part time job holding.

[54] Each of these groups are mutually exclusive.
[55] There was no statistically significant relationship between part time job holding and gender when the whole sample of school leavers was taken into account.

Table 6.3: Percentage of school leavers who had part time by stage left school and gender

	Percent With PTJ	Male	Female	Sample N
All School Leavers	52.7	51.6	54.1	2304
Junior Cycle Leavers	31.2	36.0	20.8	627
Left school during 1st Year	7.1	11.4	0.0	56
Left school during 2nd Year	26.0	26.6	25.0	104
Left school during 3rd Year	23.3	34.2	11.4	73
Unknown when left school	46.2	44.0	50.0	13
Left before completing JC	21.4	25.3	14.7	373
Completed Junior Certificate	37.8	41.1	27.2	254
All Senior Cycle Leavers	60.7	59.8	61.7	1677
Left during Transition Year	41.3	35.7	50.0	46
Completed Transition Year	73.3	80.0	60.0	30
Left during LCA	58.9	62.7	51.6	90
Left during LCVP	66.7	64.9	72.9	24
Left during LC	63.3	66.7	72.7	79
Completed LCA	68.7	72.4	72.7	182
Completed LCVP	72.6	72.5	50.0	230
Completed Leaving Certificate	56.9	55.1	58.3	996

What is of particular interest from Table 6.3 is that part time job holding was highest among those pursuing vocational or pre-vocational curricula – that is, the Leaving Certificate Vocational Programme and the Leaving Certificate Applied - indicating that this group of students could be more interested in work than other students. Approximately 40 per cent of students who completed the established Leaving Certificate did not exercise any work activity during their studies, representing an increase based on previous studies[56]. However, of those who left school without any qualifications in 2001, a similar percentage of students (20 per cent) had worked in a part-time job in both surveys.

[56] McCoy and Smyth (2004) reported that among those who left school in 1999 just under a quarter of LC students did not exercise any activity during their studies.

Table 6.4: Percentage of school leavers who completed second level education and who had part time job according to gender and the number of years spent in second level education

	Total Percent	Male	Female
6 year second level education	**63.2**		
Completed the Established Leaving Certificate	61.1	60.2	61.9
Completed Leaving Certificate Vocational (LCVP)	71.2	73.9	70.0
Completed Leaving Certificate Applied (LCA)	69.2	63.6	73.3
5 year second level education	**60.0**		
Completed the Established Leaving Certificate	54.6	52.2	56.6
Completed Leaving Certificate Vocational (LCVP)	73.2	71.9	74.2
Completed Leaving Certificate Applied (LCA)	68.6	65.1	72.9

Unlike other studies of part time job holding, a distinction is made among those who completed a five or six year second level education cycle, dependent on participation in and completion of Transition Year (see Table 6.4 above). Overall levels of part time job holding are similar across the two cohorts. However, levels were higher among those who completed second level education in a six-year cycle than a five-year cycle, which could possibly be explained by the fact that these young people have had more time to acquire part time jobs. While not shown here, the percentage of school leavers who completed second level education and who had a part time job in junior cycle was higher among those pursuing a five year second level cycle than those following a six year cycle.

Gender differences are also evident in relation to term time part time job-holding as shown by each of the tables above. Among junior cycle leavers, a higher proportion of males held term time jobs compared to females, supporting previous studies that have indicated that boys are more likely to begin working at a younger age than girls both in Ireland (McCoy & Smyth 2004) and internationally (Greenberger and Steinberg 1983; Steinberg Laurence and Greenberger 1986). Explanations generally lie in terms of personal agency, positing that male students might elect to work at an early age, particularly if they are not fully engaged in school (Entwisle et al 2001). A much higher proportion of males than females held a term time job while at school among those who left school upon completion of the

Leaving Certificate Vocational Programme. The next section now moves on to discuss the uptake of school organised work experience among school leavers.

School Organised Work Experience

School organised work experiences occur in senior cycle only and participation in work experience as part of the curriculum is dependent on both the educational track being pursued, but also the stage at which young people leave the education system. Table 6.5 shows that a distinction can also be made between those who completed a five-year cycle and those who completed a six-year cycle (who completed Transition Year). What is particularly evident (and what we would have expected) from Table 6.5 is that students who have completed the established Leaving Certificate generally obtain their school organised work experience from participation in Transition Year, but this is also particularly evident among those who completed the Leaving Certificate Vocational Programme. Even though work experience is a component of both programmes, it would seem that LCA students are more likely to obtain their school organised work experience from LCA than from any other programme.

Table 6.5: Percentage of senior cycle leavers who had a school organised work experience by stage left school and gender

	Percent with SCHWK	Male	Female
All Senior Cycle Leavers	43.9	46.9	40.8
Stage Left Senior Cycle			
While Doing Transition Year	60.9	60.7	61.1
Completed Transition Year	93.9	95.0	90.0
While Studying for LCA	64.4	71.2	51.6
While studying for LCVP	45.8	30.8	63.6
Completed 5 year second level			
Completed LCA	81.0	86.0	75.0
Completed LCVP	45.9	51.6	41.9
Completed Leaving Certificate	0.6	0.3	0.9
Completed 6 year second level			
Completed LCA	83.3	90.9	76.9
Completed LCVP	91.8	95.7	90.0
Completed Leaving Certificate	82.1	82.9	81.3

Work Histories: Incidence and Persistence of Early work experiences during second level education

This section now builds on our previous knowledge of early work experiences before leaving school by considering the concept of work histories accumulated by school leavers in relation to both part time jobs and school organised work experiences. In doing so, we should come to a better understanding of how experience of work may contribute to participation in different programmes at senior cycle.

Part time work history of School Leavers during Junior Cycle

Figure 6.1 illustrates through the use of a 3-D bar graph, the proportion of school leavers who had a part time job in each of the years of junior cycle (1st year, 2nd year, 3 year), according to the stage of leaving second level education. What is particularly evident from Figure 6.1 is that young people's entry into the labour market – whether formal or informal – begins at an early age. 6.6 per cent of the whole sample of school leavers had a term time job in 1st year, which corresponds to a typical age of 13, well below the legal age for working. However, it should be noted that this

definition includes all types of work undertaken by young people, including babysitting.

Figure 6.1: 3-D Bar Graph of the proportion of school leavers who had a PTJ in each of the Junior Cycle Years, according to the stage left school.

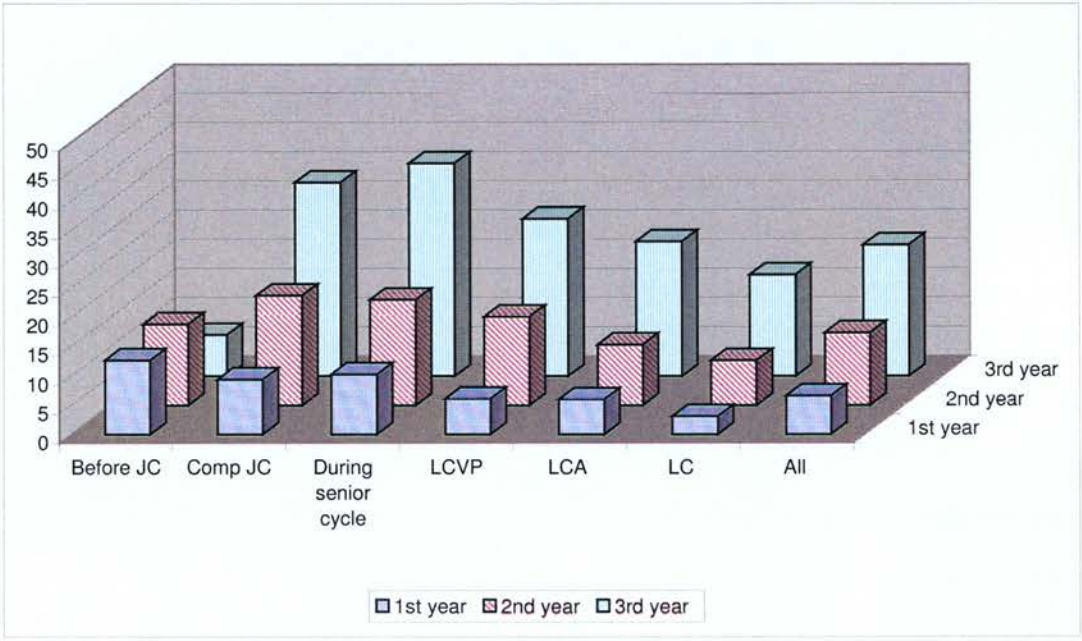


Figure 6.1 also illustrates that irrespective of when school leavers left school (with the exception of those who left school without any qualifications) the proportion holding a term time job in each of the years of junior cycle increases for every year of junior cycle. Levels of part time job holding in 3rd year – a significant year due to the Junior Certificate examination appear to be high among those who left school upon completion of the Junior Certificate and those who dropped out of school during senior cycle. Among school leavers who completed the senior cycle, levels were somewhat higher among those who completed the LCA and LCVP. These patterns were broadly similar for males and females (distinction between males and females not shown).

Figure 6.2: Clustered Bar Chart illustrating the percentage of school leavers who had a part time job in 1 year, 2 years, 3 years or no years during junior cycle, according to the stage left school.

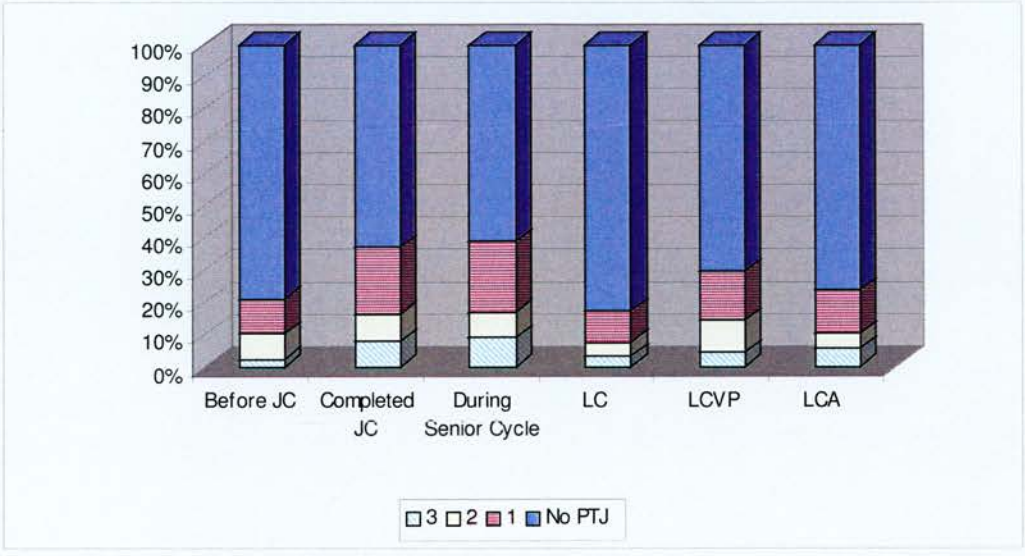


Figure 6.2 presents the percentage of school leavers who did not have a part time job in junior cycle and those who had a part time job in one, two or three years of junior cycle, according to the stage of leaving school, using a clustered bar chart. From this we can see that there is little evidence of 'consistent workers' in junior cycle – that is, few young people held a part time job in each of the years of junior cycle. However, an examination of transitional probabilities[57] from year to year - the probability of holding a part time job from one year to the next - suggests considerable persistence in term time job holding between 1st year and 2nd year, and 2nd year and 3rd year (see Table A6 in Appendix). Thus, having a term time part time job in the previous year is a good predictor for having a part time job the next year.

[57] The first row of conditional probabilities shows the probability of being in a term time job in year 2 conditional on being in a term time job in year 1. The second row represents the probability of having a term time job in 2nd year conditional on **not** holding a term time job in 1st year.

Table 6.6: Proportion of school leavers with a PTJ in each academic year

		1st year	2nd year	3rd year	TY	5th year	6th year
Junior cycle leavers	Before completion of Junior Certificate	12.6 (32)	13.8 (35)	7.1 (18)			
	Upon completion of Junior Certificate	9.4 (35)	18.8 (70)	33.2 (124)			
During senior cycle	During Senior Cycle	10.3 (28)	18.1 (49)	36.5 (99)	24.1 (19)	49.4 (39)	10.1 (8)
Completed 5 year second level education	Completed established LC	3.8 (24)	9.5 (61)	20.7 (132)	7.7 (49)	47.3 (302)	38.3 (245)
	Completed LCVP	6.4 (10)	17.8 (28)	30.6 (48)	7.6 (12)	65.6 (103)	49.7 (78)
	Completed LCA	7.0 (11)	12.0 (19)	25.3 (40)	10.1 (16)	58.9 (93)	54.4 (86)
Completed 6 year second level education	Completed established LC	2.0 (7)	4.5 (16)	11.5 (41)	45.1 (161)	49.3 (52.2)	31.9 (114)
	Completed LCVP	5.5 (4)	9.6 (7)	19.2 (14)	63.0 (46)	64.4 (47)	46.6 (34)
	Completed LCA	0.0 (0)	0.0 (0)	8.3 (2)	50.0 (12)	70.8 (17)	41.7 (10)

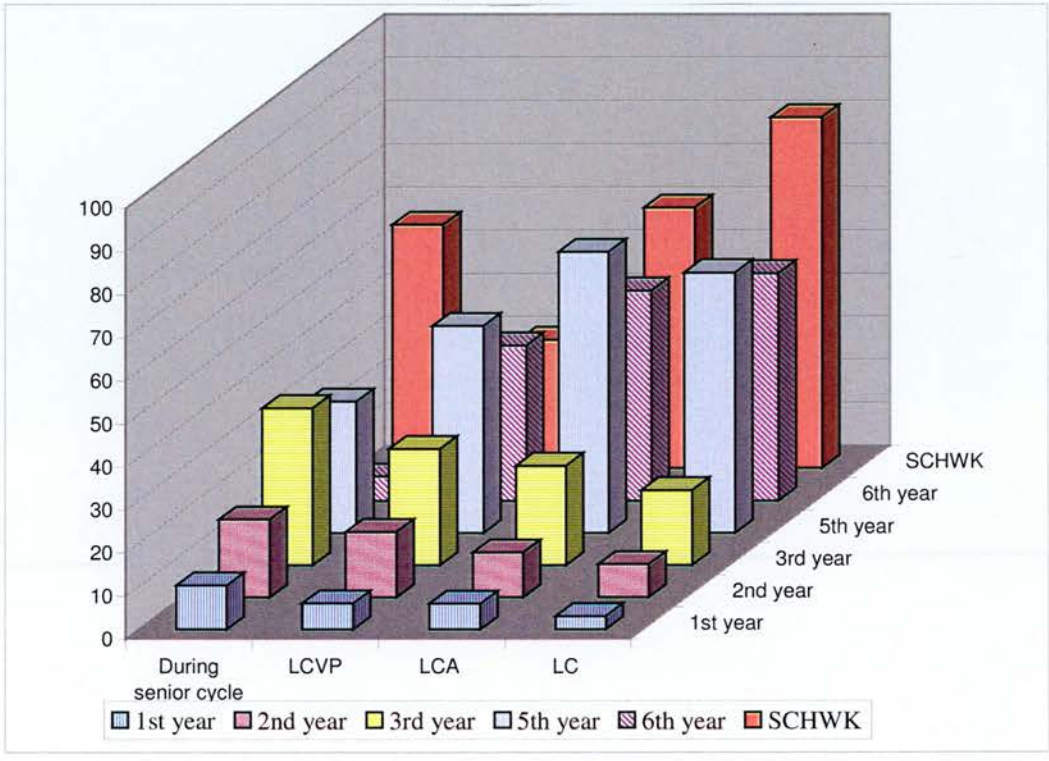
Work Histories of Senior Cycle Leavers

This section now examines the work histories of senior cycle leavers specifically, taking into account part time jobs held during junior cycle and senior cycle, and school organised work experiences undertaken during senior cycle. Figure 6.3 presents the percentage of senior cycle leavers who held a part time job in each year of second level education and who had a school organised work experience, according to the stage of leaving school, using a clustered bar chart. For the purpose of this chart, part time job holding during Transition Year is not taken into account. In doing so, senior cycle leavers were conceptualised into four groups; (1) those who left school during senior cycle, (2) those who completed the Leaving Certificate Vocational Programme, (3) those who completed the Leaving Certificate Applied and (4) those who completed the established Leaving Certificate.

Figure 6.3 illustrates that a higher proportion of school leavers who completed the established Leaving Certificate and the LCA held a term time job in 5th and/or 6th year compared to LCVP students. Among those who completed the Leaving Certificate, the proportion of term time job holders in 6th year (Leaving Certificate examination year) declined for each of the three sub-cohorts, suggesting that many

young people reduce their work activities in important examination years, but this was more evident among LCVP and established Leaving Certificate students than LCA students. This could be due to the fact that LCA students are examined through continuous assessment as well as a terminal examination and so are not privy to the intensive examination processes that those pursuing the established Leaving Certificate and LCVP options are, and so combinations of education and work are more achievable.

Figure 6.3: Clustered bar chart illustrating the percentage of senior cycle leavers who held a part time job in each year of second level education according to stage left school.



What is clearly evident is that the percentage of senior cycle leavers with a part time job continues to grow through junior and senior cycle, reaching a peak at 5th year and then decreasing in 6th year. Participation in school organised work experience is highest among those who completed the established Leaving Certificate, those who completed the Leaving Certificate Applied, and those who left school during senior

cycle. In order to fully understand these patterns, the next section provides multivariate analyses including individual and school level characteristics.

6.5.2 Who Works? Multivariate analyses of participation in term time part time jobs

This section considers who works. In doing so, it answers the second set of research questions. How do young people who have part time jobs during second level differ from those who do not? What factors are significant in determining whether a young person attending full time second level education decides to work part time or not? Is there a set of characteristics that distinguish the group of 'workers' from the group of 'non-workers'? Does the proportion of students with a part time job vary across schools? Specifically, this section considers participation in part time jobs among junior cycle leavers and senior cycle leavers. The first set of analyses considers the factors associated with having a part time job before leaving school among junior cycle leavers. The second set of analyses then considers the factors associated with having a part time job in junior cycle and in senior cycle among senior cycle leavers.

Junior Cycle Leavers and part time job holding before leaving school

What factors are significant in determining whether a junior cycle leaver has had a part time job before leaving school or not? Are there a set of characteristics that distinguish the group of 'workers' from the group of 'non-workers'? How do gender, socio-economic background and school and local area level factors influence involvement in term time part time job holding for junior cycle leavers? Descriptive results are reported in Table A7 in the Appendix and multivariate analyses based on a multilevel binary logistic regression analysis reported in Table 6.7 below address this question for this nationally representative sample of junior cycle leavers. This sub-sample includes 627 pupils in 147 schools and both student and school characteristics are considered. Because the sample size for this set of analysis is small (n=627), categorical variables have been reduced to binary dummy variables[58].

[58] For example, parental social class background is defined as 1=higher professional/non manual and 0=all other social class backgrounds.

Model 1 of Table 6.7 presents the findings from the unconditional model which is used to guage the magnitude of variation between schools in part time job holding in junior cycle among junior cycle leavers by estimating a model with no predictors at either level. The results indicate that there is significant variation across schools in the proportion of junior cycle leavers who have a part time job before leaving school. Approximately 14% of the residual variance in part time job holding in junior cycle among junior cycle leavers is attributable to differences between schools. We hypothesise that part time job holding will be higher among males and those from lower socio-economic backgrounds. Furthermore, a contextual school level variable is anticipated. It is expected that the higher the school mean SES, the lower the probability of having a part time job among junior cycle leavers.

Model 2 of Table 6.7 includes individual level variables and we see in line with our expectations that males are more likely to have a part time job than females. Those living in households with full parental employment are more likely to have a part time job than those living in households exposed to parental unemployment. Furthermore, there is also an apparent effect of the local area; junior cycle leavers living in areas of moderate socio-economic deprivation are less likely to have a part time job than those living in areas of low socio-economic deprivation. When individual level variables are included, we now see that the random effects have diminished significantly from .491 to .293. A significant reduction in school level variance was particularly evident after parental education levels had been entered into the model.

Model 3 includes the school level variables; school type attended, gender-mix of the school, school mean SES and a dummy variable indicating whether the school offers a differentiated curriculum at senior cycle. We now see that the effect of gender and parental employment situation remain relatively unchanged, but with the addition of the school level variables the effect of local area socio-economic deprivation is no longer significant. While the random effects have diminished marginally, none of the school level variables have reached statistical significance, but significant differences remain between schools in the proportion of junior cycle leavers who have a part time job before leaving school.

Table 6.7: Multilevel Binary Logistic Regression Model estimating the determinants of term time job holding in junior cycle among junior cycle leavers

	M1	M2	M3
Constant	*-.908 (.115)*	-3.163 (.737)	*-.318 (.772)*
Gender			
Male		.708 (.227)*	.684 (.231)*
Ref: Female			
Parental Social Class			
Higher/Lower Prof/Non Manual		.159 (.193)	.154 (.194)
Ref: All other groups			
Parental Highest Education			
Primary or Less		-.060 (.207)	-0.080 (.208)
Ref: Any level higher			
Parental Employment Situation			
Full household employment		.834 (.206)*	.834 (.207)*
Ref: Exposed to hh unemployment			
Family Structure			
Single parent household		-.094 (.315)	-.113 (.316)
Ref: Two parent household			
Local Area Socio-Deprivation			
High		-.399 (.269)	-.467 (.263)
Medium		-.584 (.264)*	-.537 (.275)^
Ref: Low			
School Type Attended			
Community/Comprehensive			.025 (.404)
Vocational			.149 (.359)
Ref: Secondary			
Gender mix of school			
Mixed			-.068 (.377)
Single-sex			
School Mean SES			-.321 (.211)
Diff curriculum senior cycle			
Yes			-.149 (.276)
No			
Random Effects	**.491 (.194)**	**.293 (.166)**	**.291 (.166)**
627 pupils 147 schools.			

* Indicates coeff/se >2.

The multilevel model suggests that gender and household employment situation has a particular bearing on the probability of having a term time job in junior cycle, that is, these variables seem to be dominant in determining part time job holding among this group. Males are more likely to hold a part time job than females. It has been hypothesised that male students might elect to work at an early age particularly if they are not fully engaged in school (Entwisle 2001) while female students although ready to seek work, might not be as welcome as males into the workforce and so be prevented from working in early adolescence, reflecting structural constraints. There are however other reasons why males may be more likely to work in junior cycle than females. McCoy and Smyth (2004) found that girls are strongly over-represented in domestic or babysitting type jobs, particularly in junior cycle while males are more likely to be found in the domestic sector – on farms and factories, service stations, and off-licences. As a result, females may under-report their economic activity due to the nature of the work they are involved in.

Interestingly, parental employment rather than parental education, social class background or family structure is the dominant socio-economic background variable; junior cycle leavers living in households with full parental employment are more likely to have a term time job than those exposed to household unemployment (meaning that either one or two parents are unemployed). There are a number of possible explanations for this finding. Firstly, parental employment or unemployment may affect the decision of the young person to work; parental unemployment may reduce a young persons' contacts with the labour market and potential employees. Similarly, parents who are in employment may use their contacts to obtain term time employment for their sons/daughters. An alternative explanation may be a socialisation effect whereby young people living in households with employment may be encouraged to obtain a term time job by their parents. Even when controlling for the measure of socio-economic deprivation in the local area that the school leaver lives in, the coefficient for parental employment remains positive and significant, showing that the negative effect of parental unemployment is not simply a reflection of a weak local labour market.

The aim of the analysis was to examine the factors associated with part time job holding among this sub-cohort, rather than the influence of part time job holding

on subsequent drop-out – this is the subject matter for the next chapter. While the findings presented in Table 6.7 provide an insight into factors associated with the uptake of part time jobs during term time for this sub-sample, some consideration should be given at this stage to measures which are not observed in the data. It is evident that the data does not capture all or even most of the factors that went into the decision to participate in a part time job before leaving school among this sub-cohort. It is likely, based on previous research conducted both in the Irish context and internationally, that additional individual level variables would explain a further proportion of the difference between those who do and do not have a part time job before leaving school. These variables are unobserved but are likely to be factors such as academic ability, perceptions of schooling and educational and occupational aspirations as well as other individual level factors such as the presence of learning disabilities or perhaps recent migration to Ireland.

The sub-sample in question here relates to young people who left school so while little is known about this specific group in the Irish context, we can assume that engagement in school or commitment to school was low among the whole sample. There may be unobserved factors which influence both selection into becoming a junior cycle leaver and having a part time job before leaving school. While previous research suggests that (among young people in junior cycle) males of higher ability are less likely to have a part time job in junior cycle, it may be likely that the higher ability students in this group are less likely to have a part time job, however, low engagement or disengagement in school may reduce the effect of ability. These issues will be discussed in more depth in Chapter 6.

Senior Cycle Leavers and part time job holding

In this section the determinants of having a part time job in junior cycle and senior cycle among senior cycle leavers are considered. That is, the probability of having a term time job in junior cycle or senior cycle is estimated using the multilevel logit model in a conditional form (the condition being completion of the Junior Certificate and entry into upper second level education). To measure the influence of previous term time job holding in junior cycle on the likelihood of term time job holding in senior cycle, variables relating to part time job status in each of the junior cycle years

(that is, 1st year, 2nd year and 3rd year) have been introduced into the analysis among the other pupil and school level characteristics.

Part time job holding in junior cycle among senior cycle leavers

The previous analyses of junior cycle leavers indicated that gender, household employment and local area deprivation are key determinants of having a part time job in junior cycle among junior cycle leavers. Table 6.8 now considers the key determinants of having a part time job in junior cycle among senior cycle leavers. With a larger number of pupils in this subsample, categories of the variables can be further disaggregated as shown below.

Model 1 of Table 6.8 presents the baseline model which indicates that there is significant variation between schools in the proportion of senior cycle leavers who had a part time job in junior cycle. That is, some of the variance in part time job holding in junior cycle among senior cycle leavers is attributable to differences between schools. Model 2 of Table 6.8 considers student level characteristics and we see that among senior cycle leavers males are more likely to have a part time job in junior cycle than females. Levels of parental education also seem to have an influence with those whose parents having higher levels of education being less likely to have a part time job in junior cycle than those with lower levels of parental education. When individual level variables are included, we now see that the random effects have diminished significantly from 12% to 10%. Model 3 then considers the school level variables. We see that males continue to have a higher probability of having a part time job in junior cycle than females, as do those whose parents have higher levels of education. While the proportion of between school variance has decreased marginally between Model 2 and Model 3, none of the school level variables are statistically significantly associated with having a part time job in junior cycle among senior cycle leavers, but significant differences remain between schools in the proportion of senior cycle leavers who had a part time job in junior cycle.

Table 6.8: Multilevel Binary Logistic Regression Model estimating the determinants of term time job holding in junior cycle among senior cycle leavers

	M1	M2	M3
Intercept	-1.355 (.082)	-1.174 (.277)*	-.633 (.633)
Male		.423 (.132)*	.395 (.131)*
Lower professional		-.063 (.227)	-.121 (.229)
Non manual		-.205 (.224)	-.324 (.230)
Skilled manual		.063 (.237)	-.054 (.242)
Semi skilled manual		-.097 (.274)	-.209 (.281)
Unclassified		-.676 (.329)*	-.745 (.331)*
Junior Cert		-.130 (.183)	-.086 (.183)
Leaving Cert		-.533 (.188)*	-.446 (.189)*
Diploma or Higher		-1.105 (.234)*	-.994 (.236)*
Unclassified		-.269 (.290)	-.242 (.291)
Full HH Employment		.177 (.132)	.175 (.132)
Single parent family		-.209 (.245)	-.214 (.245)
Moderate deprivation		.304 (.181)	.311 (.186)
Low deprivation		-.004 (.179)	.041 (.180)
Comm/comprehensive			.526 (.268)
Vocational			.377 (.221)
Mixed			.020 (.225)
School mean SES			-.217 (.145)
Diff curr at senior cycle			-.058 (.193)
Random Effect	**.464 (.125)**	**.405 (.119)**	**.374 (.115)**
1678 pupils 226 schools			

*Reference categories: female, higher professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, high deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle. * Indicates coeff/se >2*

The results of Table 6.7 and Table 6.8 indicate that gender is a key determinant of having a part time job in junior cycle among both junior cycle leavers and senior cycle leavers with males being more likely to have a part time job among both subsamples. Furthermore, while parental employment is a determinant of having a part time job in junior cycle among junior cycle leavers, it is not a determinant among senior cycle leavers. Rather, parental education level is now a key determinant for this subsample. We now consider part time job holding in senior cycle among senior cycle leavers.

Part time job holding in senior cycle among senior cycle leavers

Table 6.9 then considers the probability of having a part time job in senior cycle among senior cycle leavers. Again, model 1 presents the unconditional/baseline model which now suggests that there is some school level variation in the proportion of senior cycle leavers who had a part time job in senior cycle; approximately 3% of the residual variance in part time job holding in senior cycle among senior cycle leavers is attributable to differences between schools. Model 2 of Table 6.9 adds individual level variables. We now see that those living in households with full parental employment are more likely to have a part time job in senior cycle while those living in a single parent household are less likely to have a part time job. These findings suggest that mechanisms relating to access to work may be at play here, but also parental perceptions of the value of part time job holding in senior cycle. Parental social class or parental education levels are not determinants of having a part time job in senior cycle. Model 3 of Table 6.9 then considers school level variables. When school level variables are included in the model there is a marginal reduction in the random effects, however, none of the variables measured at the school level reach significance. Model 4 of Table 6.9 then considers whether the school leaver had participated in Transition Year and Transition Year work experience. We now see that those who had a Transition Year work experience are more likely to have a part time job in senior cycle relative to those who participated in Transition Year but who did not have a school organised work experience. The models without previous part time job holding in junior cycle suggest that among senior cycle leavers, parental employment, family structure and Transition Year participation and TY work experience are key determinants of part time job holding during term time in senior cycle. Unlike junior cycle leavers, there is no effect of local area deprivation and gender. School type does not influence senior cycle part time job holding.

In Model 5 of Table 6.9 previous part time job holding in junior cycle is added to the model as a dummy variable. We now see that school leavers who had a part time job in junior cycle are more likely to have a part time job in senior cycle relative than those who did not. There is now increased between school variation in the proportion of senior cycle leavers who had a part time job in senior cycle.

Females are now more likely than males to have a part time job. Those living in households with full parental employment continue to be more likely to have a part time job in senior cycle while those living in a single parent household are less likely to have a part time job. Senior cycle leavers attending vocational schools are now less likely to have a part time job than those attending secondary schools, and those who had a Transition Year work experience are more likely to have a part time job in senior cycle relative to those who participated in Transition Year but who did not have a school organised work experience.

In Model 6 we consider that the employment effect may be dynamic, in that part time work status during each of the years of junior cycle may also affect part time work status in senior cycle. In this model, previous part time job holding in each of the years of junior cycle are taken into account separately and are added as dummy variables. The findings from Model 5 hold, but now we see that school leavers who had a part time job in 3rd year – the Junior Certificate year - are more likely to hold a part time job in senior cycle than those who did not. The Wald test reveals that there are significant differences between schools – approximately 3% of the residual variance in part time job holding in senior cycle is attributable to differences between schools. Furthermore, it is important to note that the presence of collinearity bias has been taken into account in Model 6 of Table 6.9. The coefficient and standard error of the variable *part time job in 3rd year* has been examined in a number of models (not presented here). These models have included estimating Model 6 without the variables *part time job in 2nd year* and *part time job in 1st year* and other models with combinations of these variables. No large changes have been observed in relation to the estimated regression coefficients when a predictor variable is added or deleted. That is, the estimates are robust because the coefficient and t value of *part time job in 3rd year* remains particularly large and significant in each of the models estimated[59].

[59] Future work should take into account marginal effects rather than fixed effects.

Table 6.9: Multilevel Binary Logistic Regression Model estimating the determinants of term time job holding in senior cycle among senior cycle leavers

	M1	M2	M3	M4	M5	M6
Intercept	.282 (.056)	.245 (.220)	.543 (.473)	.001 (.517)	-.447 (.552)	-.424 (.553)
Male		-.114 (.104)	-.109 (.105)	-.115 (.105)	-.264 (.113)*	-.266 (.114)*
Lower professional		.016 (.173)	-.018 (.175)	-.008 (.176)	.033 (.189)	.019 (.189)
Non manual		.167 (.176)	.116 (.183)	.126 (.184)	.244 (.199)	.214 (.200)
Skilled manual		.355 (.195)	.314 (.200)	.327 (.201)	.373 (.217)	.362 (.217)
Semi skilled manual		.112 (.224)	.045 (.231)	.067 (.232)	.155 (.252)	.161 (.252)
Unclassified		-.007 (.238)	-.050 (.241)	-.033 (.243)	.190 (.258)	.210 (.258)
Junior Cert		-.145 (.161)	-.135 (.161)	-.133 (.162)	-.118 (.176)	-.126 (.177)
Leaving Cert		-.091 (.158)	-.090 (.160)	-.125 (.162)	.007 (.175)	-.005 (.175)
Diploma or Higher		-.316 (.183)	-.311 (.185)	-.362 (.187)	-.106 (.201)	-.123 (.202)
Unclassified		.394 (.255)	.410 (.256)	.402 (.257)	.519 (.274)	.487 (.275)
Full HH Employment		.262 (.108)*	.267 (.109)*	.282 (.109)*	.264 (.117)*	.282 (.117)*
Single parent family		-.527 (.191)*	-.532 (.191)*	-.565 (.192)*	-.587 (.208)*	-.622 (.210)*
Moderate deprivation		.011 (.134)	-.039 (.139)	.016 (.140)	-.087 (.151)	-.097 (.152)
Low deprivation		.033 (.132)	.024 (.133)	.071 (.134)	.089 (.144)	.084 (.144)
Comm/comprehensive			.012 (.192)	.064 (.194)	-.050 (.210)	-.027 (.211)
Vocational			-.279 (.158)	-.235 (.159)	-.366 (.173)*	-.359 (.173)*
Mixed			.171 (.157)	.217 (.159)	.231 (.170)	.222 (.171)
School mean SES			-.100 (.104)	-.103 (.105)	-.070 (.112)	-.072 (.112)
Diff curr at senior cycle			.084 (.136)	.112 (.137)	.156 (.147)	.172 (.148)
Had TY SCHWK				.802 (.221)*	.785 (.233)*	.787 (.233)*
Did not do TY				.351 (.207)	.176 (.219)	.162 (.219)
Had ptj in junior cycle					2.227 (.175)*	
Part time job 1st year (1,0)						-.077 (.495)
Part time job 2nd year (1,0)						.828 (.383)
Part time job 3rd year (1,0)						2.058 (.209)*
Random Effect	**.108 (.057)**	**.098 (.056)**	**.090 (.056)**	**.092 (.056)**	**.117 (.066)**	**.115 (.065)**
1678 pupils, 226 schools						

*Reference category: female, higher professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, high deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no part time job in junior cycle. * Indicates coeff/se >2*

Table 6.9 suggest that gender, parental employment situation, family structure, participation in Transition Year school organised work experience and previous part time job holding are determinants of having a part time job in senior cycle. While the local area that junior cycle leavers live in approached significance in Table 6.7 in relation to having a part time job before leaving school, even when the clustering of the data was taken into account, there was no such effect for senior cycle leavers. This suggests that older school leavers are less likely to be affected by local labour market conditions than younger school leavers. This is most likely explained by participation in the formal rather than informal labour market but also because of the types of jobs that older school leavers are employed in. It is important at this stage to consider the positive and statistically significant influence of part time job holding in 3rd year on part time job holding in senior cycle. The literature review and findings from Table 6.7 above discussed the importance of *unobserved* characteristics on the probability of having a part time job in junior cycle. This discussion can also be extended to the findings of Table 6.9. That is, both observed but also unobserved characteristics of young people are likely to affect both decisions – the decision to have a part time job in 3rd year and the decision to have a part time job in senior cycle. Even after controlling for the observed variables in Table 6.9, it is possible that employment in 3rd year and employment in senior cycle are strongly affected by unobserved factors. These factors may produce a strong association between these variables mostly due to unobserved variables that explain both. In other words, they may cause our estimates of causal effects to be biased. For example, McCoy and Smyth (2004) found that among students who continued on to senior cycle, males of lower ability were more likely to have a part time job in junior cycle. It is reasonable then to assume that ability or engagement in school may produce a strong association between part time job holding in 3rd year and part time job holding in senior cycle. One method of estimating effects that are not biased by unobserved factors is to use an instrumental variables approach. Unfortunately it was not clear what variables could serve as appropriate instruments in our analysis. An alternative approach is to use a matching technique through the use of propensity score matching. This method for reducing bias will be discussed in more detail in Chapter 7.

6.5.3. When do students work? Descriptive and multivariate analyses of the timing of part time job holding among school leavers who completed Second Level Education

In an attempt to understand more about young peoples' work activities before leaving school, we now focus on the timing of part time jobs held during second level education among those who completed second level education. This line of inquiry has been motivated by studies of the life course which argue that work histories evolve over a much longer period of time than has ordinarily been considered (Entwisle et al., 2000; Caspi et al., 1998). Furthermore, an attempt is made to understand how employment patterns evolve and to determine the factors that shape work behaviours while still in second level education. This section now considers the third set of research questions. What are the characteristics of those who have part time jobs at different stages of second level education? Do young people who work in junior cycle have the same characteristics of young people who work in senior cycle? Do young people who work in important examination years have the same characteristics as those who do not work in those years? Does the proportion of students with a part time job in a particular year vary across schools? Specifically, this section compares like with like and considers part time job holding during second level education among those who completed second level education.

An overview of patterns of part time job holding

Figure 6.4 illustrates the percentage of students who had a part time job in each of the years (1st year through to 6th year) of second level education according to whether five or six years were completed (that is, whether the student completed Transition Year or not). For each of the cohorts, the pattern of participation remains the same – the prevalence of part time job holding increases as young people move through the second level education system, reaching a 'peak' in 5th year and then decreasing in 6th year. The decrease in participation in 6th year can be accounted for by two explanations. Firstly, young people may simply decide, or their parents suggest, not to have a part time job in order to free up time for study for the Leaving Certificate examination. Secondly, research on term time working in the past has recommended that employers do not employ students in examination years. This has been adhered

to by the fast food chain, McDonalds, and has consistently been recommended from business organisations (such as IBEC – Irish Business and Employers Confederation). Thus, there may now be constraints in the nature of employment that young people can participate in while at school, particularly in examination years.

Figure 6.4: Percentage of school leavers who completed second level education and had a part time job in each year by number of years spent in second level

Table 6.6 earlier in the chapter provided information on the proportion of school leavers who participated in part time jobs during second level education. Tables 6.10 and 6.11 now present the proportion of students who had a part time job in each of the years of second level education according to whether they completed five years or six years in second level education (these Tables are shown separately for males and females in Table A8 and A9 in the Appendix). What is particularly interesting from Figure 6.4 and Tables 6.10 and 6.11 is that a statistically significant higher proportion of students who had completed five years of second level education had a part time job in each of the academic years, with the exception of part time job holding in 5th year (levels of part time job holding in this year are similar for the two cohorts). There are two reasons why this may occur – age, and attitudes towards educational attainment. Firstly, research suggests that younger students are more likely to take part in Transition Year than older students (Smyth et al., 2004), which would mean that students who complete six years in second level

are also younger when entering second level education. This explanation would account for the lower level of take-up of part time job holding in 1st year among the six year students, relative to the five year students, 2.4 and 4.7 per cent respectively. Secondly, students who complete Transition Year tend to be mostly from professional/middle class backgrounds and attain higher average educational attainment in the Leaving Certificate examination than those who do not (Smyth et al., 2004), and suggests that this type of student is more likely to focus attention on school rather than on a combination of school and work. Tables 6.10 and 6.11 also explore the characteristics of school leavers who work n each of the years of second level education relative to those who do not according to individual level characteristics, indicating that from the earliest years of work activity, substantial variation by characteristics are evident, particularly in relation to gender, parental education and household employment but also local area socio-economic disadvantage.

Table 6.10: Percentage of school leavers who had a PTJ in each of the years of second level according to individual level characteristics and school type attended (5 year senior cycle)

	1st Year	2nd Year	3rd Year	5th Year	6th Year
	4.7	11.3	23.1	52.2	42.9
Parental Social Class					
Higher/Lower Prof/Non Manual	4.5	11.9	21.9	49.4	40.2
All other social groups	5.1	10.4	24.8	56.5	46.9
Parental Education					
Primary or Less	7.7	15.5	33.9	61.9	53.0
Second level or higher	4.1	10.4	20.7	50.1	40.7
Household Employment					
Full household employment	5.8	12.4	25.5	55.2	45.8
Exposed to unemployment	3.7	10.3	20.7	49.3	40.0
Family Structure					
Single parent household	4.2	12.5	22.2	40.3	34.7
Two parents present	4.8	11.2	23.1	53.2	43.5
School Type Attended					
Secondary	5.3	10.8	19.5	51.2	43.3
Community/Comprehensive	6.4	12.8	25.0	50.6	35.3
Vocational	3.6	11.2	25.5	53.7	45.3
Measure of socio-economic disadvantage					
High	9.3	16.7	27.2	56.9	42.7
Moderate	4.1	11.4	24.3	54.3	47.6
Low	2.4	8.1	19.8	49.1	39.8
N	932	932	932	932	932

Note: These students did not enter Transition Year and so completed 5 years of education at second level

Table 6.11: Percentage of school leavers who had a PTJ in each of the years of second level according to individual level characteristics and school type attended (6 year senior cycle)

	1st Year	2nd Year	3rd Year	Transition Year	5th Year	6th Year
	2.4	5.1	12.6	48.2	52.9	34.8
Parental Social Class						
Higher/Lower Prof/Non Manual	2.4	5.1	13.6	49.4	53.3	35.5
All other social groups	2.5	4.9	9.8	45.1	51.6	32.8
Parental Education						
Primary or Less	5.4	8.9	12.5	51.8	57.1	35.7
Second level or higher	2.0	4.5	12.6	47.7	52.3	34.7
Household Employment						
Full household employment	2.8	5.6	12.0	45.8	49.8	32.5
Exposed to unemployment	2.0	4.4	13.2	51.2	56.6	37.6
Family Structure						
Single parent household	0.0	0.0	8.8	38.2	47.1	38.2
Two parents present	2.6	5.5	12.9	49.0	53.3	34.5
School Type Attended						
Secondary	1.4	4.2	10.5	46.0	49.5	27.5
Community/Comprehensive	4.7	7.0	20.9	62.8	65.1	48.8
Vocational	4.0	6.5	14.5	48.4	56.5	46.8
Measure of socio-economic disadvantage						
High	4.2	5.6	12.5	43.1	55.6	33.3
Moderate	1.8	4.3	11.6	54.3	61.6	42.1
Low	2.3	5.6	13.6	46.0	46.0	30.5
N	454	454	454	454	454	454

Note: These students did completed Transition Year and so completed 6 years of education at second level

Multivariate analyses are used to determine the individual and school level characteristics that associated with having a part time job in each of the years of second level among those who completed second level education. To determine the factors associated with part time job holding in each of the academic years among school leavers who completed the senior cycle, irrespective of the number of years spent in second level, a series of multilevel binary logistic regressions were carried out separately for each year, with the dependent variable stating whether the respondent held a part time job in that year or not (coded 1,0). Independent variables included in the regressions were the individual level variables outlined in the tables above but also school level variables described earlier in the chapter. To examine how these variables influence part time job holding in each of the years of second level education, previous part time job status were also taken into account[60]. Based on the descriptive statistics, the model assumes that experience of having a part time job in one year, helps in getting a job in the subsequent year.

Who works in 1st year?

The multivariate analyses for determining the factors associated with participation in part time jobs in 1st year is shown in Table 6.12 below. Among those who completed senior cycle, part time job holding in 1st year was largely determined by parental social class background, parental education levels and the measure of socio-economic disadvantage of the local area in which school leavers live. These findings confirm the descriptive findings in the Tables 6.10 and 6.11 above and Tables A8 and A9 in the Appendix, and hold both for those who completed a five or six year second level education. Based on the earlier analyses of part time job holding in junior cycle (Table 6.7, Table 6.8) we might have expected that gender, parental employment, parental education and to a certain degree local area deprivation would influence part time job holding in 1st year. Model 1 of Table 6.12 indicates that there are no school effects in the probability of having a part time job in 1st year. Model 2 adds individual level characteristics and we see that school leavers from a non manual background are less likely to have a part time job than those from a higher or lower professional background. We also see that school

[60] It is important to note that this cannot be taken as a 'causal' effect given the discussion of unobserved characteristics in the previous section.

leavers whose parents have higher levels of education are less likely to have a part time job in 1st year than those whose parents have primary or lower levels of education.

Table 6.12: Multilevel binary logistic Regression of factors influencing part time job holding in 1st year (senior cycle completers only)

	M1	M2
Intercept	-3.208 (.149)*	-3.121 (.523)
Male		.524 (.284)
Non manual		-.973 (.417)*
Skilled manual		.180 (.377)
Semi skilled manual		-.881 (.592)
Unclassified		-2.004 (.1.056)
Junior Certificate		-1.041 (.427)*
Leaving Certificate		-.843 (.392)*
Diploma or Higher		-1.305 (.480)*
Unclassified		-.539 (.609)
Full HH employment		.217 (.295)
Single parent family		-.230 (.620)
High Deprivation		1.312 (.371)*
Moderate deprivation		.542 (.411)
Random Effect	**.425 (.379)**	**.035 (.274)**
1408 pupils		

*Reference category: female, higher/lower professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, low deprivation area, * Indicates coeff/se >2*

Model 2 also shows that those living in areas of high socio-economic disadvantage were more likely to hold a part time job in 1st year than those living in areas of low socio-economic deprivation. Earlier findings suggested that junior cycle leavers living in areas of low socio-economic deprivation were somewhat more likely to have a part time job than those living in areas of moderate socio-economic deprivation. However, now we see that among those who completed second level education, students living in areas of high socio-economic disadvantage were more likely to hold a part time job in 1st year than those living in less disadvantaged areas. That is, the effect of local area deprivation differs according to whether the school leaver completed second level education or not. Likewise, parental employment situation did not reach significance, suggesting that parental networks in accessing

employment are not so important for young people who complete second level education than for those who leave education in junior cycle.

Who works in 2nd year?

The multivariate analyses for determining the factors associated with part time job holding in 2nd year are shown in a multilevel framework in Table 6.13. Model 1 begins with an unconditional random intercept or variance components model that allows the probability of having a part time job in 2nd year to vary across schools. The unconditional model is used to guage the magnitude of variation between schools in part time job holding in 2nd year among those who complete second level education by estimating a model with no predictors at either level.

Model 1 of Table 6.13 indicates that there is significant variation across schools in the proportion of students who have a part time job in 2nd year. We hypothesise that part time job holding in 2nd year will be higher among males. Furthermore, we hypothesise a 'contextual' effect at level 2 such that a lower school-mean SES will predict higher part time job holding.

Model 2 introduces individual level variables into the model. Contrary to our expectation, at 2nd year, there were no significant differences in part time job holding in 2nd year according to gender. Males were not more likely to have a part time job in year than females. However, part time job holding in 2nd year continued to be differentiated by parental education, and the measure of socio-economic disadvantage of the local area in which young people live. Those whose parents with upper second level or third level education are less likely to have a part time job in 2nd year than those whose parents have lower levels of education. Furthermore, students living in areas of high socio-economic deprivation are more likely to hold a part time job in 2nd year than those living in areas of low socio-economic deprivation. Using a threshold representation of the model, we obtain a variance partitioning component (VPC) of $0.418/(0.418 + 3.290) = 0.11$. So approximately 11% of the residual variance in part time job holding in 2nd year is attributable to differences between schools.

Table 6.13: Multilevel binary logistic Regression of factors associated with having a part time job in 2nd year (school leavers who completed senior cycle)

	M1	M2	M3	M4
Intercept	-2.529 (.120)	-2.418 (.372)	-2.097 (.923)	-2.847 (1.081)
Male		.238 (.204)	.234 (.204)	.048 (.239)
Non manual		.207 (.263)	.153 (.269)	.788 (.325)*
Skilled manual		-.120 (.319)	-.174 (.323)	-.562 (.467)
Semi skilled manual		.299 (.353)	.252 (.361)	.902 (.417)*
Unclassified		-.960 (.546)	-.979 (.547)	-.364 (.585)
Junior Certificate		-.312 (.291)	-.267 (.293)	.229 (.345)
Leaving Certificate		-.590 (.291)*	-.538 (.295)	-.236 (.357)
Diploma or Higher		-.833 (.350)*	-.756 (.356)*	-.276 (.429)
Unclassified		-.266 (.467)	-.232 (.468)	-.011 (.572)
Full HH employment		.061 (.210)	.068 (.210)	-.061 (.250)
Single parent family		-.131 (.398)	-.150 (.399)	-.048 (.448)
High Deprivation		.620 (.266)*	.598 (.276)*	.214 (.302)
Moderate deprivation		.098 (.283)	.125 (.285)	-.144 (.311)
Comm/comprehensive			.231 (.372)	.135 (.419)
Vocational school			.011 (.318)	.190 (.345)
Mixed gender school			.242 (.329)	.276 (.372)
School mean SES			-.146 (.217)	-.063 (.239)
Diff curr senior cycle			-.090 (.285)	-.277 (.307)
Part time job 1st year				6.008 (.629)*
Random Effect	**.575 (.254)**	**.418 (.221)**	**.390 (.215)**	**.212 (.240)**
N=1408				

*Reference category: female, higher/lower professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year. * Indicates coeff/se >2*

Model 3 then adds school level variables to the model. However, none of the school level variables reach statistical significance. However, the between-school variance has decreased from .418 to .390, so some of the variation in part time job holding in 2nd year between schools is explained by differences according to these school characteristics. When part time job holding status in 1st year was added to Model 4, we see that the those from non manual and semi skilled manual backgrounds are now more likely to hold a part time job in 2nd year than those from higher professional backgrounds. There is no longer an effect of parental education or the local area. The coefficient for part time job holding in 1st year demonstrates a

positive influence on part time job holding in 2nd year – indicating that young people who have a part time job in 1st year are more likely to have a part time job in 2nd year. Some of the variables are no longer significant because of confounding or collinearity when part time job in 1st year is added to the model. Furthermore, it is likely that the factors associated with part time job holding in 1st year, which are also independent variables in predicting part time job holding in 2nd year, are potentially controlling for selection bias into part time job holding in 1st year. In addition, when school level variables and part time job holding are included in the model, significant differences no longer remain between school in the probability of having a part time job in 2nd year.

Who works in 3rd year – Junior Certificate Examination Year

3rd year – the Junior Certificate year is an important examination year for students. Table 6.10 and Table 6.11 indicated that part time job holding is higher in 3rd year among those who completed a five year cycle than those who completed a six year cycle; 23% compared to 12.6% respectively. In addition, levels of part time job holding in 3rd year were higher among males than females, irrespective of whether a five-year or six year programme was pursued. The multilevel logistic regression results for determining participation in 3rd year are shown in Table 6.14 below.

Model 1 of Table 6.14 presents the unconditional model. Here we see that the probability of having a part time job in 3rd year varies significantly between schools. Model 2 introduces individual level variables, and we now see that males are more likely to hold a part time job in 3rd year than females. As before, those whose parents with upper second level or third level education are less likely to have a part time job in 3rd year than those whose parents have lower levels of education. Using a threshold representation of the model, we obtain a VPC of 0.297/(0.297 + 3.290) = 0.08. So when student characteristics are accounted for, approximately 8% of the residual variance in part time job holding in 3rd year is attributable to differences between schools.

Table 6.14: Multilevel binary logistic regression of factors associated with having a part time job in 3rd year

	M1	M2	M3	M4
Intercept	-1.541 (.086)	-1.120 (.266)	-.561 (.661)	-.998 (.753)
Male		.361 (.148)*	.358 (.148)*	.397 (.177)*
Non manual		-.160 (.194)	-.258 (.198)	-.480 (.248)
Skilled manual		.095 (.214)	.000 (.217)	.067 (.254)
Semi skilled manual		-.214 (.275)	-.306 (.280)	-.702 (.370)
Unclassified		-.757 (.337)*	-.806 (.336)*	-.645 (.382)*
Junior Certificate		-.318 (.212)	-.252 (.212)	-.192 (.256)
Leaving Certificate		-.667 (.213)*	-.576 (.214)*	-.505 (.261)*
Diploma or Higher		-1.221 (.259)*	-1.093 (.261)*	-1.148 (.322)*
Unclassified		-.565 (.351)	-.529 (.351)	-.603 (.441)
Full HH employment		.094 (.151)	.102 (.151)	.132 (.183)
Single parent family		-.130 (.285)	-.145 (.284)	-.091 (.349)
High Deprivation		.302 (.193)	.268 (.197)	.029 (.220)
Moderate deprivation		-.096 (.196)	-.061 (.195)	-.161 (.218)
Comm/comprehensive			.315 (.275)	.301 (.302)
Vocational			.169 (.232)	.239 (.253)
Mixed			.246 (.241)	.256 (.276)
School mean SES			-.241 (.156)	-.249 (.178)
Diff curr senior cycle			-.086 (.205)	-.081 (.230)
Part time job 1st year				1.218 (.833)*
Part time job 2nd year				4.721 (.438)*
Random Effect	**.359 (.133)**	**.297 (.126)**	**.245 (.117)**	**.045 (.118)**
N=1408				

*Reference category: female, higher/lower professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year. * Indicates coeff/se >2*

Model 3 then adds school level variables to the model. However, none of the school level variables reach statistical significance. However, the between-school variance has decreased from .297 to .245, so some of the variation in part time job holding in 3rd year between schools is explained by differences according to these school characteristics. Finally, Model 4 then adds previous part time job holding in junior cycle. We see that those who had a part time job in 1st or 2nd year were also more likely to have a part time job in 3rd year. Males continue to be more likely to have a part time job in this important examination year than females, and those whose parents have higher levels of education are less likely to have a part time job. With

the addition of previous part time job holding in 1st year and 2nd year, there are no longer significant differences in the probability of having a part time job in 3rd year. As before, it is important to consider both observed and unobserved factors. We should also consider these findings in the light of Smyth and McCoy (2004a) who found that males of lower ability were more likely to hold part time jobs in this year than males of higher ability. Therefore, it is likely that the unobserved factors such as ability or school engagement that influence participation in part time job holding in 1st year and/or 2nd year are also likely to influence participation in part time job holding in 3rd year.

Who works in 5th year?

5th year represents a peak for part time working among second level students, irrespective of whether students pursue five or six years in second level education (see Figure 6.4). Table 6.15 presents a multilevel logit analysis of part time job holding in 5th year. Model 1 presents the unconditional model which suggests that the probability of a student having a part time job in 5th year varies significantly between schools. Model 2 adds individual level factors and we see that students from a skilled manual background are more likely to hold a part time job in 5th year than those from a professional background. Furthermore, those whose parents have upper secondary education or third level education are less likely to have a part time job in 5th year than those whose parents have lower levels of education. However, students who come from single parent families are less likely to have a part time job than those from families where both parents are present. Part time job holding does not vary according to gender. When individual level variables are added to the model we see that the between school variance has reduced from .114 to .085 suggesting that individual level factors explain most of the between school variation in part time job holding in 5th year.

Table 6.15: Multilevel binary logistic regression of factors influencing part time job holding 5th year for males and females separately (senior cycle completors)

	M1	M2	M3	M4	M5
Intercept	.083 (.061)	.264 (.213)	.600 (.488)	.272 (.538)	-.254 (.581)
Male		-.084 (.113)	-.072 (.113)	-.076 (.113)	-.204 (.123)
Non manual		.229 (.148)	.180 (.153)	.184 (.153)	.294 (.168)
Skilled manual		.469 (.175)*	.420 (.179)*	.432 (.179)*	.514 (.194)*
Semi skilled manual		.102 (.216)	.039 (.221)	.067 (.221)	.183 (.243)
Unclassified		-.116 (.224)	-.159 (.226)	-.150 (.226)	.089 (.242)
Junior Certificate		-.241 (.183)	-.214 (.183)	-.210 (.184)	-.143 (.202)
Leaving Certificate		-.356 (.177)*	-.338 (.179)	-.358 (.179)	-.207 (.196)
Diploma or Higher		-.522 (.199)*	-.490 (.202)*	-.527 (.203)*	-.253 (.221)
Unclassified		-.117 (.277)	-.089 (.278)	-.100 (.279)	.049 (.301)
Full HH employment		.122 (.117)	.133 (.117)	.150 (.118)	.136 (.127)
Single parent family		-.467 (.214)*	-.467 (.214)*	-.491 (.215)*	-.544 (.236)*
High Deprivation		.080 (.144)	.020 (.149)	.051 (.150)	-.037 (.164)
Moderate deprivation		-.053 (.139)	-.058 (.140)	-.030 (.141)	.019 (.153)
Comm/comprehensive			-.104 (.205)	-.056 (.205)	-.154 (.227)
Vocational			-.187 (.169)	-.150 (.169)	-.207 (.186)
Mixed			.274 (.166)	.294 (.167)	.281 (.182)
School mean SES			-.125 (.110)	-.130 (.111)	-.084 (.119)
Diff curr senior cycle			-.015 (.146)	.012 (.146)	.052 (.159)
Had TY SCHWK				.532 (.249)*	.523 (.263)*
No Transition Year				.197 (.235)	-.010 (.250)
Part time job 1st year					-.352 (.605)
Part time job 2nd year					.726 (.457)
Part time job 3rd year					2.341 (.252)*
Random Effect	**.114 (.065)**	**.085 (.062)**	**.078 (.061)**	**.075 (.060)**	**.108 (.074)**
N=1408					

*Reference category: female, higher/lower professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year, no ptj 3rd year. * Indicates coeff/se >2*

Model 3 then includes school level factors and as expected, none of the school level variables reach significance. Model 4 then includes variables relating to Transition Year participation and participation in Transition Year school organised work experience, and we see that students who had a school organised work experience in Transition Year are more likely to have a part time job in 5th year, than

those who did Transition Year but who did not have a Transition Year work experience.

Finally, Model 5 includes previous part time job holding in junior cycle and we see that students who had a part time job in their Junior Certificate year are also more likely to hold a part time job in 5th year. As before, it is important to consider both observed and unobserved factors. It is likely that the unobserved factors such as ability or school engagement that influence participation in part time job holding in 3rd year are also likely to influence participation in part time job holding in 5th year.

Who works in 6th year

Finally, we now consider participation in a part time job in 6th year. As before, Model 1 of Table 6.16 considers the unconditional model which indicates that part time job holding in 6th year varies significantly across schools. Model 2 introduces individual level variables and we see that students from skilled manual backgrounds are more likely to hold a part time job in 6th year than those from professional class backgrounds. That is, students from class backgrounds were access to employment is easily obtained are more likely to have a part time job. Furthermore, students whose parents have third level education are significantly less likely to have a part time job in 6th year than those whose parents have lower levels of education. This suggests that students whose family place a higher value on education are likely to discourage them from working in jobs, possibly encouraging them to spend more time on their academic work. With the addition of individual level variables, the between school variance has declined from .289 to .230. Model 3 then considers school level characteristics. We now see that the between school variance has declined to .177 indicating that school characteristics explain some of the between school variance in part time job holding in 6th year. When school characteristics are added to the model we now see that the effect of parental social class background is no longer significant. This is explained by the school level characteristics; we now see a clear effect in relation to the socio-economic intake of the school: the higher the school mean SES-intake, the lower the probability of having a part time job in 6th year, an important examination year. Model 4 considers Transition Year participation and participation in Transition Year school organised work experience. With the

introduction of variables relating to Transition Year, there is a further reduction in the between school variance, but the variables do no reach significance. Finally, Model 5 of Table 6.16 considers previous part time job holding in junior cycle. We now find that the effect of parental education is no longer significant. We now see that among those who completed second level education, students who live in areas of high deprivation are less likely to have a part time job than those living in areas of low deprivation. The effect of school mean SES persists, and students who held a part time job in 3rd year and students who held a part time job in 5th year are more likely to have a part time job in 6th year than those who did not have a part time job in these years. With the addition of previous part time job holding in earlier years (experience in the labour market) the effect of local area deprivation becomes significant. It would now seem that students living in areas of high socio-economic disadvantage are constrained from access to employment opportunities, thus reinforcing the point made by (Entwisle 2001) that students, although ready to seek work, might not be as welcome into the workforce and so be prevented from working in early adolescence, reflecting structural constraints.

Table 6.16: Logistic Regression: determinants of part time job holding in 6th yr

	M1	M2	M3	M4	M5
Intercept	-.462 (.070)	-.319 (.222)	.652 (.531)	.208 (.588)	-1.659 (.752)
Male		-.126 (.119)	-.108 (.119)	-.118 (.119)	-.160 (.154)
Non manual		.291 (.154)	.154 (.158)	.160 (.158)	.090 (.206)
Skilled manual		.436 (.179)*	.301 (.182)	.294 (.182)	.063 (.233)
Semi skilled manual		.237 (.223)	.071 (.228)	.074 (.228)	.043 (.300)
Unclassified		-.099 (.238)	-.191 (.239)	-.190 (.240)	-.148 (.311)
Junior Certificate		-.242 (.184)	-.186 (.185)	-.191 (.185)	-.079 (.237)
Leaving Certificate		-.258 (.179)	-.187 (.181)	-.199 (.181)	.070 (.233)
Diploma or Higher		-.623 (.206)*	-.510 (.208)*	-.513 (.208)*	-.235 (.265)
Unclassified		.164 (.281)	.216 (.282)	.216 (.282)	.524 (.371)
Full HH employment		.172 (.121)	.191 (.122)	.202 (.122)	.160 (.156)
Single parent family		-.262 (.225)	-.260 (.225)	-.263 (.225)	.064 (.298)
High Deprivation		-.028 (.159)	-.199 (.163)	-.207 (.163)	-.450 (.208)*
Moderate deprivation		-.033 (.153)	-.071 (.152)	-.080 (.152)	-.107 (.194)
Comm/comprehensive			-.313 (.229)	-.316 (.229)	-.474 (.285)
Vocational			-.165 (.186)	-.157 (.187)	-.099 (.237)
Mixed			.329 (.185)	.315 (.185)	.204 (.232)
School mean SES			-.361 (.123)*	-.349 (.123)*	-.405 (.155)*
Diff curr senior cycle			.229 (.162)	.221 (.163)	.344 (.203)
Had TY SCHWK				.428 (.276)	.176 (.343)
No Transition Year				.462 (.261)	.462 (.327)
Part time job 1st year					.231 (.459)
Part time job 2nd year					.225 (.345)
Part time job 3rd year					.464 (.223)*
Part time job 5th year					3.148 (.176)*
Random Effect	**.286 (.092)**	**.230 (.085)**	**.177 (.078)**	**.173 (.078)**	**.244 (.121)**
N=1408					

*Reference category: female, higher/lower professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year, no ptj 3rd year, no ptj 5th year. * Indicates coeff/se >2*

6.5.4 Participation in School organised work experience – senior cycle leavers

This section now considers the second type of work that second level students can engage in – school organised work experience. In doing so, it addresses the fourth set of research questions: How do young people who participate in a school organised work experience as part of a programme at senior cycle differ from those who do not

participate in the school organised work experience but who are in the programme? Are there a set of characteristics that distinguish these type of 'workers' from the group of 'non-workers'? Furthermore, does the proportion of students with a school organised work experience vary across schools? Because of the curricular constraints, participation in school organised work experience is not by random allocation. That is, school leavers have the opportunity to engage in a school organised work experience if they enter (meaning they are either chosen or allocated or decide to participate in the course by individual choice) into one or more of the programmes that offer such experience in senior cycle – that is, Transition Year, Leaving Certificate Applied or Leaving Certificate Vocational. This section considers the determinants of having a school organised work experience among participants of these courses, and begins by outlining the prevalence of school organised work experience among senior cycle leavers. Senior cycle leavers only are considered in this section because junior cycle leavers do not have the opportunity to engage in a curriculum that offers school organised work experience. Furthermore, all senior cycle leavers are considered in the following analyses irrespective of whether they completed second level education or not.

Uptake of School Organised Work Experience

Table 6.17: Uptake of School Organised Work Experience by Programme Type

	Took part	*Had Work Experience*	*%*
Transition Year	581	469	80.7
Leaving Certificate Applied	270	194	71.9
Leaving Certificate Vocational Programme	253	100	39.5
All Senior Cycle school leavers with SCHWK			44.3

Almost half (44 per cent) of all senior cycle leavers partake in a school organised work experience before leaving school, but what is interesting and what has not been previously documented, is that the percentage of school leavers who participate in school organised work experience differs across programmes. Table 6.17 indicates that participation in a school organised work experience is highest among students

who participate in Transition Year and the Leaving Certificate Applied, but that participation levels are lowest among Leaving Certificate Vocational Programme students. Separate descriptive analyses are carried out for those who have completed the senior cycle, according to whether students had spent five or six years in second level education, depending on participation in Transition Year (see Table 6.18).

Table 6.18: Percentage of senior cycle leavers who had any school organised work experience by stage left school and gender

Stage Left School	SCHWK	Male	Female
All senior cycle leavers	44.3	52.7	47.3
Stage Left Senior Cycle			
During TY	60.9	60.7	61.1
Completed TY	93.9	95.0	90.0
While studying for LCA	64.4	71.2	51.6
While studying for LCVP	45.8	30.8	63.3
While studying for LC	34.2	32.7	36.7
Completed 5 year cycle			
Completed LCA	81.0	86.0	75.0
Completed LCVP	45.9	51.6	41.9
Completed Leaving Certificate	0.6	0.3	0.9
Completed 6 year cycle			
Completed LCA	83.3	90.9	76.9
Completed LCVP	91.8	95.7	90.0
Completed Leaving Certificate	82.1	82.9	81.3

Table 6.18 indicates that those who left school or completed school having pursued the Leaving Certificate Applied had high levels of uptake of school organised work experience. LCA students are less likely to opt for Transition Year, so the majority of students with any school organised work experience is likely to work experience acquired as part of the Leaving Certificate Applied. Among those who completed the Leaving Certificate Applied, participation seems to be marginally higher for males than females. As expected, differences in the uptake of school organised work experience varies considerably for those who completed the established Leaving Certificate according to whether five or six years were spent in second level education. Established Leaving Certificate students who have completed six years of second level education have participated in Transition Year and any work experience

acquired by this group represents work experience acquired as part of the Transition Year programme. The work experience acquired by Leaving Certificate Vocational Programmes is less homogenous. LCVP students can obtain experience of school organised work experience through the LCVP programme or from participation in Transition Year. As a result, there are considerable differences in levels of uptake of school organised work experience among Leaving Certificate Vocational Programme students when we consider those who completed 5 years compared to those who completed 6 years; 51 per cent of males and 46 per cent of females, compared to 96 per cent of males and 92 per cent of females, respectively. This difference can largely be accounted for the participation of many Leaving Certificate Vocational Programme students in Transition Year, who also had a Transition Year work experience. While Chapter 5 empirically demonstrated that participation in the Leaving Certificate, Leaving Certificate Applied and Leaving Certificate Vocational Programmes at senior cycle is stratified (see Table 5.5), this section now considers whether some students are more likely to have a school organised work experience than others.

The characteristics of senior cycle leavers who participated in a school organised work experience are shown in column one of Table 6.19 The characteristics that differentiate senior cycle leavers who engage in school organised work experience with those who do not include gender, household employment situation, school type attended, measure of local socio-economic deprivation in the local area and the programme being pursued before leaving school. Column 1 of Table 6.19 shows that among all senior cycle leavers males, those living in households with full parental employment, those attending secondary schools, and those pursuing LCA or Transition Year have high rates of participation in any school organised work experience before leaving school. The characteristics of participants of TY, LCA and LCVP school organised work experience can also be seen from Columns 2-4 in Table 6.19. For example, we see that a higher proportion of males than females have work experience among all senior cycle leavers, including Transition Year students and Leaving Certificate Applied students.

Table 6.19: % of senior cycle leavers who had school organised work experience by type of school organised work experience

	Any SCHWK	*TY SCHWK*	*LCA SCHWK*	*LCVP SCHWK*
Gender				
Male	46.9	82.2 (235)	77.6	60.6
Female	40.8	79.3 (234)	62.9	60.4
Parental Social Class				
Higher and Lower Professional	44.5	81.4	80.9	64.9
Non Manual	45.0	78.8	68.4	53.8
Skilled Manual	45.3	81.6	79.7	57.4
Semi-Unskilled Manual	42.6	81.4	65.8	57.1
Unclassified	35.5	81.0	54.2	83.3
Parental Education				
Primary or Less	44.1	73.3	62.4	63.6
Junior Certificate	40.4	76.3	74.4	64.1
Leaving Certificate	42.7	85.5	78.2	58.9
Diploma or Higher	49.0	83.0	87.5	53.8
Unknown	42.9	79.3	70.0	65.0
Family Structure				
Single parent household	39.7	83.3	60.9	83.3
Both parents present	44.2	80.5	72.9	59.3
Household Employment Situation				
Full household employment	45.7	79.4	76.6	58.8
Exposed to unemployment	41.9	82.2	67.8	62.6
School Type Attended				
Secondary	49.4	85.3	70.6	62.4
Community/Comprehensive	42.4	76.8	80.0	57.6
Vocational	38.2	73.7	69.2	59.5
Number of Years at Second Level				
Five year cycle		77.2	74.4	53.9
Six year cycle		81.7	45.8	76.7
Local Authority Disadvantage				
High	39.4	71.8	76.5	55.1
Medium	46.9	83.9	69.5	63.9
Low	44.0	81.0	68.8	60.0
Sample N	1649 All senior cycle leavers	581 Participated in TY	272 Participated in LCA	253 Participated in LCVP

The following section now moves on to consider multivariate analyses of the probability of having school organised work experience among Transition Year participants, Leaving Certificate Applied participants and Leaving Certificate Vocational participants.

Transition Year and Transition Year School Organised Work Experience

Do Transition Year students who take part in a Transition Year school organised work experience differ from those who do not? The characteristics of Transition Year participants who had a school organised work experience during Transition Year are shown in column two of Table 6.19. Levels of uptake of TY school organised work experience are very high, and we see some variation in the characteristics of those who participate in this type of school organised work experience. It would seem that a higher proportion of males, and those whose parents have higher levels of education partake in Transition Year school organised work experience than others. Variation is also particularly evident in relation to contextual factors such as school type and measure of local socio-economic disadvantage. For example, we see from Column 2 in Table 6.19 that Transition Year participants attending secondary schools have higher levels of participation in Transition Year school organised work experience than those attending vocational or community comprehensive schools. Furthermore, those living in areas of high local socio-economic deprivation had lower levels of participation in TY school organised work experience compared with those living in areas of moderate or low socio-economic deprivation. While not shown in Table 6.19, Transition Year students who had a part time job in 2nd year were more likely to have a school organised work experience in Transition Year – 93 per cent compared to 80 per cent, as were those who had a part time job in Transition Year – 89 per cent compared to 73 per cent.

Multivariate Analyses

Multivariate analyses of the determinants of having a Transition Year school organised work experience are presented in Table 6.20. The dependent variable is binary and is coded 1 if the Transition Year student had a TY school organised work experience and 0 if he/she did not. The outcome itself is likely to be influenced at least in part by school policy and so it is important to have a school level component of variance. Model 1 of Table 6.20 presents the unconditional model. Here we see that the probability of having a Transition Year school organised work experience varies significantly between schools. Approximately 34% of the residual variance in participation in Transition Year school organised work experience is attributable to

differences between schools. Model 2 includes individual level variables and we now see that while the school level variance decreases, none of the observed individual level variables approach statistical significance, which suggests that in schools providing Transition Year, participation in school organised work experience is random based on these observed variables. Model 3 then includes school level characteristics. We now see that the between school variance has decreased from 1.768 to 1.673. In relation to school level characteristics, it is also evident that students attending vocational schools are less likely to engage in a Transition Year school organised work experience than those attending secondary schools. This effect holds even when school mean socio-economic intake and other school level characteristics are added to the model.

Table 6.20: Multilevel Binary Regression of factors associated with having a TY work experience among those who participated in Transition Year

	M1	M2	M3	M4
Intercept	1.850 (.177)*	2.210 (.402)*	4.028 (1.207)*	3.948 (1.239)*
Male		.335 (.293)	.355 (.290)	.334 (.297)
Professional /Non manual		-.005 (.302)	-.046 (.304)	-.025 (.310)
Primary or Less		-.521 (.345)	-.497 (.351)	-.492 (.361)
Full HH employment		-.365 (.272)	-.414 (.274)	-.486 (.282)
Single parent family		.139 (.505)	.120 (.502)	.200 (.512)
High Deprivation		-.589 (.396)	-.747 (.413)	-.734 (.423)
Moderate deprivation		-.301 (.375)	-.441 (.379)	-.437 (.388)
Comm/comprehensive			-.940 (.621)	-.970 (.644)
Vocational school			-1.091 (.512)*	-1.081 (.531)*
Mixed gender school			-.294 (.486)	-.317 (.506)
School mean SES			-.308 (.284)	-.279 (.292)
Part time job 1st year				-.160 (.1.148)
Part time job 2nd year				2.021 (1.003)*
Part time job 3rd year				-.398 (.433)
Random Effect	**1.755 (.511)**	**1.768 (.520)**	**1.654 (.503)**	**1.820 (.539)**
581 pupils in 169 schools				

*Reference category: female, other class background, parents upper second level education or higher, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year, no ptj 3rd year. * Indicates coeff/se >2*

Model 3 indicates that when school effects on the probability of having a school organised work experience Transition Year are estimated, the standard errors increase marginally, but the conclusions remain the same. In fact, depending on what school level variables are added to the model, the VPC marginally increases or decreases (see Table 6.21 below). Model 4 then includes previous part time job holding in junior cycle. We now see that students who had a part time job in 2nd year are more likely to have a Transition Year school organised work experience than those who did not have a part time job in 2nd year. An examination of the random effects indicates that with the addition of school level variables and part time job holding in 1st year, the VPC has increased marginally. This is shown in Table 6.21. While it is not uncommon with logistic regression models, an increase in random effects can also occur for substantive reasons - that is, that differences between schools are 'concealed' initially but become more obvious when school level factors are taken into account.

Table 6.21: Summary of Random Effects of all models run

	Random Effect	VPC
Model 1 Unconditional model	1.755 (.511)	34
Model 2 Individual characteristics	1.768 (.520)	34
Model 3 Individual + School Type	1.675 (.506)	33
Model 4 Individual + School Type + School Gender Mix	1.713 (.515)	34
Model 5 Individual + School Type + School Gender Mix + School Mean SES	1.654 (.503)	33
Model 6 Individual + School Type + School Gender Mix + School Mean SES + PTJ	1.820 (.539)	35

Smyth, Byrne and Hannan (2004) report that when Transition Year participants do not have a work experience as part of the programme, it is most likely due to either a lack of available work placements in the local area, a students own choice not to participate or students being precluded from participating due to behavioural problems. Based on the findings here, it would seem that the influence of school effects, particularly attending a vocational school on the probability of having a work experience in Transition Year is strong, even when controlling for other school level characteristics. One could argue that secondary schools may have stronger links with

employers and so face lesser difficulties in placing their students in a work placement than other school types. There is no evidence to suggest that young people living in areas of high socio-economic disadvantage may lack local opportunities for school organised work experience placements, thus pointing to the importance of school networks rather than a lack of available work placements in the local area. Furthermore, it would seem that parental networks are not particularly important in gaining access to Transition Year work experience. Individual determinants of having a Transition Year school organised work experience relate to previous part time job holding in junior cycle particularly in 2nd year. This suggest that there are unobserved factors which influence both participation in 2nd year and participation in Transition Year school organised work experience for those who enter Transition Year.

Leaving Certificate Applied and LCA School Organised Work Experience

Leaving Certificate Applied work experience is compulsory for all LCA students, so do Leaving Certificate Applied students who have an LCA school organised work experience differ from those who do not? The characteristics of LCA participants who took part in a school organised work experience during LCA are shown in column three of Table 6.19. The characteristics that differentiate students who took part in an LCA school organised work experience are parental employment, parental education and gender. Males are more likely to have an LCA work experience than females – 77 per cent compared to 63 per cent, as are those living in households with full parental employment relative to those living in households exposed to unemployment – 78 and 68 per cent respectively, and school leavers whose parents have higher levels of education.

Table 6.22 presents the model to estimate the determinants of having an LCA work experience. As in the analyses above, the outcome itself is likely to be influenced at least in part by school policy and so it is particularly important to have a school level component of variance. Approximately 24% of the residual variance in participation in Leaving Certificate Applied school organised work experience is attributable to differences between schools.

Table 6.22: Multilevel binary logistic regression of factors associated with having an LCA work experience (all those who entered LCA)

	M1	M2	M3	M4
Intercept	.954 (.197)*	1.291 (.490)*	1.120 (.1.477)	1.029 (1.487)
Male		.367 (.345)	.330 (.348)	.301 (.351)
Professional /Non manual		-.183 (.328)	-.137 (.327)	-.117 (.330)
Primary or Less		-.664 (.340)	-.640 (.343)	-.655 (.344)
Full HH employment		.652 (.360)	.631 (.363)	.594 (.367)
Single parent family		-.990 (.524)	-.960 (.521)	-.900 (.524)
High Deprivation		-.210 (.468)	-.082 (.481)	-.115 (.481)
Moderate deprivation		-.825 (.472)	-.827 (.475)	-.829 (.477)
Comm/comprehensive			.788 (.659)	.775 (.657)
Vocational			.038 (.516)	.062 (.518)
Mixed			-.452 (.571)	-.481 (.573)
School mean SES			-.427 (.365)	-.400 (.367)
Part time job 1st year				.442 (.887)
Part time job 2nd year				.203 (.674)
Part time job 3rd year				.035 (.422)
Random Effect	**1.054 (.446)**	**.962 (.440)**	**.708 (.390)**	**.696 (.388)**
270 pupils in 80 schools				

*Reference category: female, other class background, parents upper second level education or higher, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year, no ptj 3rd year. * Indicates coeff/se >2*

Table 6.23: Summary of Random Effects of all models run

	Random Effect	VPC
Model 1 Unconditional model	1.054 (.446)	24
Model 2 Individual characteristics	.962 (.440)	22
Model 3 Individual + School Type	.935 (.436)	22
Model 4 Individual + School Type + School Gender Mix	.904 (.429)	21
Model 5 Individual + School Type + School Gender Mix + School Mean SES	.708 (.390)	17
Model 6 Individual + School Type + School Gender Mix + School Mean SES + PTJ	.696 (.390)	.17

Model 1 in Table 6.22 presents the unconditional model to guage the magnitude of variation between schools in uptake of Leaving Certificate Applied

work experience by estimating a model with no predictors at either level. The results indicate that there is significant variation across schools in the uptake of LCA school organised work experience. Model 2 includes individual level variables. As before, none of the observed individual level variables approach statistical significance, which suggests that in schools providing the Leaving Certificate Applied, participation in school organised work experience is random based on these observed variables. Model 3 then includes school level characteristics. We find that none of the school level variables reach significance, however, the school level variance does decline to .708. When school level characteristics are entered into the model, the random effect coefficient is no longer twice that of its standard error suggesting that school effects are no longer significant. Furthermore, Table 6.23 shows that as each school level characteristic is entered into the model, the amount of between school variance declines and that when school mean SES is added to the model, the random effects no longer have a t-value larger than 2. The final model, Model 4 then introduces previous part time job holding in junior cycle and we see that these variables do not influence having an LCA work experience.

The uptake of school organised work experience among LCVP students

Finally, I consider Leaving Certificate Vocational students; do students who have a school organised work experience differ from those who do not? The characteristics of LCVP participants who participated in a school organised work experience during LCVP are shown in column four of Table 6.19. In all just 39.5 per cent of LCVP participants had an LCVP work experience. Model 1 of Table 6.24 presents the unconditional model which shows that there is significant variation between schools in the percentage of students who participate in a LCVP school organised work experience. Model 2 introduces individual level variables and we see that none of the individual level variables are significant; suggesting that allocation or participation in LCVP work experience is random, based on these observed characteristics. Model 3 then includes school level characteristics and again we find that the amount of between school variation actually increases from 22% to 24%. This pattern is particularly evident as each of the school level characteristics are added to the model (see Table 6.25). Finally, Model 4 includes previous part time job holding in junior

cycle and we find that LCVP students who had a part time job in 3rd year are less likely to have an LCVP work experience.

Table 6.24: Multilevel binary regression of factors associated with having an LCVP work experience among LCVP participants

	M1	M2	M3	M4
Intercept	.518 (.173)*	.290 (.402)	-.272 (.1.358)	-.073 (1.397)
Male		.043 (.310)	.007 (.318)	.135 (.329)
Professional /Non manual		-.041 (.309)	-.063 (.313)	-.070 (.318)
Primary or Less		.320 (.398)	.341 (.405)	.349 (.417)
Full HH employment		-.241 (.311)	-.305 (.317)	-.296 (.323)
Single parent family		1.384 (.907)	1.432 (.926)	1.510 (.954)
High Deprivation		.304 (.415)	.390 (.434)	.405 (.444)
Moderate deprivation		.380 (.427)	.238 (.453)	.268 (.462)
Comm/comprehensive			.026 (.640)	.080 (.652)
Vocational			.348 (.492)	.332 (.508)
Mixed			-.705 (.543)	-.587 (.556)
School mean SES			.322 (.359)	.275 (.369)
Part time job 1st year				-.050 (.736)
Part time job 2nd year				.502 (.556)
Part time job 3rd year				-.954 (.393)*
Random Effect	**.896 (.390)**	**.973 (.410)**	**1.041 (.429)**	**1.090 (.445)**
252 pupils in 104 schools				

*Reference category: female, other class background, parents upper second level education or higher, living in household exposed to unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no ptj 1st year, no part time job 2nd year, no ptj 3rd year. * Indicates coeff/se >2*

Table 6.25: Summary of Random Effects of all models run

	Random Effect	VPC
Model 1 Unconditional model	.896 (.390)	21
Model 2 Individual characteristics	.973 (.410)	22
Model 3 Individual + School Type	1.016 (.420)	23
Model 4 Individual + School Type + School Gender Mix	1.029 (.426)	23
Model 5 Individual + School Type + School Gender Mix + School Mean SES	1.041 (.429)	24
Model 6 Individual + School Type + School Gender Mix + School Mean SES + PTJ	1.090 (.445)	24

6.5.5 What types of work experience do students engage in?

This section now brings us to the final set of research questions addressed in this chapter. Does the proportion of students with different types of work experience vary across schools? Do young people who have work experience from a part time job have different characteristics than those who obtain work experience from a school organised work experience? Is it likely that work experience offered by the school (school organised work experience) provides access to the world of work for those who do not have access to part time jobs? In doing so, attention is focused to all senior cycle leavers, to consider whether students who have acquired different types of work experience in senior cycle before leaving school have different characteristics from those who do not. Different types of work experience are conceptualised in terms of the typology outlined in Section 6.5.1. If differences are found, these should be taken into account when drawing inferences about the effects of different types of early work experiences in the next chapters.

Figure 6.5: Distribution of early work experiences acquired during senior cycle among senior cycle leavers by programme being pursued.

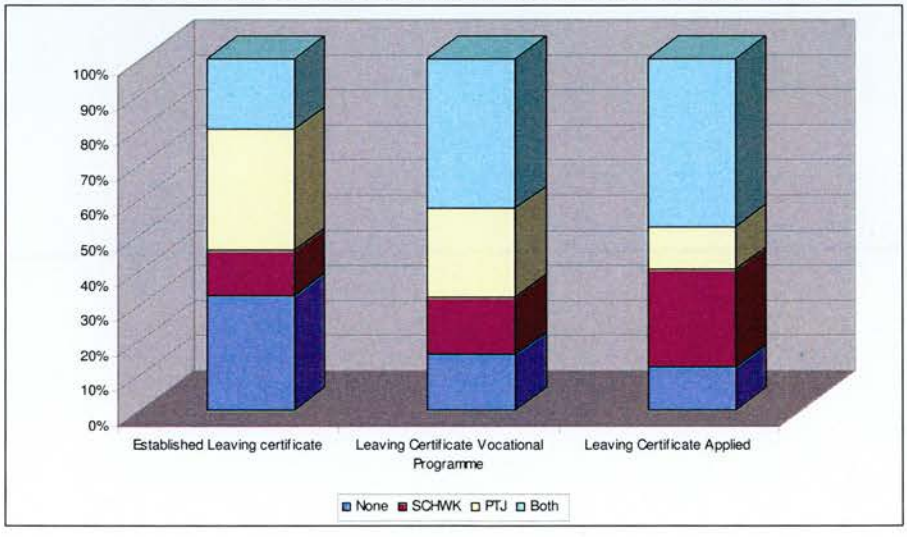


Figure 6.5 illustrates the percentage of school leavers, according to the programme being pursued at senior cycle, who had participated in each of the different types of early work experiences in senior cycle. What is particularly evident is that very few students who were pursuing the Leaving Certificate Vocational Programme or the Leaving Certificate Applied leave school without any experience of work from either

part time jobs or school organised work experience, compared with those who pursue the established Leaving Certificate. It would seem that school leavers who pursue the LCA or LCVP are more likely to have experience of both part time jobs and school organised work experiences, while candidates for the established Leaving Certificate are more likely to have either no work experience at all or experience of part time jobs only.

The distribution of early work experiences undertaken by senior cycle leavers in senior cycle is given in Table 6.26. Here, we see that the type of work experience varies according to a number of factors: gender, part time job holding in junior cycle, programme being pursued at senior cycle, parental social class background, household employment situation, school type attended and local socio-economic disadvantage. For example, Table 6.26 shows that a higher proportion of males have school organised work experience only than females – 18 per cent compared to 13 per cent respectively.

The relationship between types of early work experiences and these variables are then modelled using multinomial logistic regression models. Two models are presented. The first model, a single level multinomial regression model, is used to examine the distribution of early work experiences across senior cycle leavers and is shown in Table 6.26a. The variables considered are gender, part time job holding in junior cycle, programme being pursued at senior cycle, parental social class background, household employment situation, school type attended and local socio-economic disadvantage. The second model, a variance components multinomial regression model, is presented in Table 6.27 on page 213. This model presents two sets of regression coefficients and standard errors for each of the three categories of early work experience in a two level random intercept model to allow for school effects on the probability of having different types of work experience versus none[61].

[61] The random effects in this model are contrast specific, because different unobserved school level factors may affect each contrast.

Table 6.26: Distribution of early work experiences undertaken by senior cycle leavers in senior cycle, by various characteristics

	None	SCHWK	PTJ	Both
Gender				
Male	25.7	18.4	27.3	28.6
Female	27.7	13.5	31.5	27.3
Parental Social Class				
Professional and Non Manual	28.3	15.3	27.0	29.4
All other social class groups	24.0	17.0	33.6	25.4
Parental Education				
Primary or Less	24.1	16.4	31.8	27.8
Junior Certificate	27.5	15.3	32.1	25.1
Leaving Certificate	27.6	14.4	29.6	28.4
Diploma or Higher	27.9	19.6	23.0	29.5
Unknown	22.1	10.2	34.7	32.7
Family Structure				
Single Parent Household	32.8	19.8	27.5	19.8
Both Parents Present	26.2	15.6	29.6	28.7
Household Employment Situation				
Full Household Employment	23.8	16.0	30.4	29.9
Exposed to Unemployment	29.6	15.9	28.4	26.1
School Type Attended				
Secondary	25.5	17.6	25.0	31.9
Community/Comprehensive	26.4	13.2	31.2	29.2
Vocational	28.1	15.1	33.6	23.1
Number of Years at Second Level				
5 year cycle	33.6	10.5	37.3	18.6
6 year cycle	8.1	30.4	8.1	53.3
Local Authority Area Deprivation				
High	26.6	14.2	33.9	25.3
Medium	24.1	15.2	29.0	31.7
Low	28.3	17.3	27.7	26.7
Programme being pursued				
Leaving Certificate	32.6	12.9	34.4	20.1
Leaving Certificate Vocational	15.7	16.5	25.2	42.5
Leaving Certificate Applied	12.1	27.9	12.1	47.8
PTJ in Junior Cycle				
PTJ in 1st year	2.4	7.1	46.4	44.0
PTJ in 2nd Year	3.9	4.4	50.6	41.1
PTJ 3rd year	6.6	4.3	50.3	38.8
% Senior cycle leavers	26.7	15.9	29.4	28.0
N	450	267	493	469

Table 6.26a: Results of multinomial regression of factors associated with participation in different types of early work experiences in senior cycle (All Senior Cycle Leavers)

	SCHWK	SCHWK	SCHWK	PTJ	PTJ	PTJ	Both	Both	Both
	Model 1	*Model 2*	*Model 3*	*Model 1*	*Model 2*	*Model 3*	*Model 1*	*Model 2*	*Model 3*
Intercept	*1.197 (.838)*	*2.105 (.860)**	*1.654 (.941)^*	*3.281 (.748)****	*4.138 (.762)****	*4.319 (.830)****	*3.276 (.749)****	*2.833 (.774)****	*2.936 (.836)****
Gender									
Male	.376 (.156)*	.391 (.161)*	.359 (.164)*	-.244 (.138)^	-.219 (.140)	-.221 (.141)	-.022 (.137)	.021 (.142)	-.026 (.146)
Ref: Female									
Part time job junior cycle									
PTJ in 3rd year	-.242 (.383)	-.420 (.388)	-.348 (.389)	2.003 (.251)***	2.021 (.256)***	2.000 (.257)***	1.619 (.257)***	1.429 (.266)***	1.517 (.274)***
PTJ 2nd year	.279 (.672)	.202 (.679)	.166 (.684)	.833 (.478)^	.813 (.490)^	.869 (.492)^	.851 (.484)^	.762 (.500)	.789 (.505)
PTJ 1st year	1.506 (.930)	1.318 (.954)	1.337 (.961)	.866 (.811)	.790 (.823)	.692 (.826)	1.101 (.812)	.991 (.826)	1.003 (.832)
Programme Being Pursued									
Established LC		-1.737 (.231)***	-1.918 (.241)***		.333 (.268)	.349 (.273)		-1.659 (.218)***	-1.959 (.227)***
LCVP		-.714 (.306)*	-.810 (.310)**		.523 (.331)	.458 (.334)		-.319 (.277)	-.436 (.282)^
Ref: LCA									
Social Class Background									
All other groups			.153 (.174)			.424 (.149)**			-.102 (.158)
Ref: Professional/Non Manual									
Household Employment Sit.									
Exposed to Unemployment			-.262 (.167)			-.302 (.144)*			-.287 (.149)*
Ref: Full hhold employment									
School Type Attended									
Secondary			.558 (.179)**			-.020 (.152)			.835 (.162)***
Community/Comprehensive			-.171 (.260)			.066 (.208)			.230 (.222)
Ref: Vocational									
Socio-economic disadvantage									
High			-.477 (.198)^			.116 (.175)			-.747 (.181)***
Medium			-.776 (.200)***			.055 (.171)			-.627 (.173)***
Ref: Low									
Chi²	260.894***	462.101***	569.910***	260.894***	462.101***	569.910***	260.894***	462.101***	569.910***
Df	12	18	36	12	18	36	12	18	36

In Model 1 of Table 6.26a gender and part time job status in 1st, 2nd and 3rd year were taken into account. While few gender differences exist, it was evident that males are more likely than females to have a school organised work experience rather than no work experience at all. That is, males preferred school organised work experience over no work experience at all to a greater extent than females. While it did not reach significance, we also see that females preferred part time job holding over no work experience at all to a greater extent than males. School leavers who had part time jobs in 3rd year or 2nd year were more likely to have either part time jobs or both part time jobs and school organised work experiences than no work experience at all. However this pattern was particularly evident among those who had a part time job in 3rd year of junior cycle.

In Model 2 of Table 6.26a, the programme being pursued by the school leaver before leaving school was considered, and as we would have expected, school leavers pursuing the established Leaving Certificate and those pursuing the Leaving Certificate Vocational Programme preferred no work experience over school organised work experience to a greater extent than those pursuing the Leaving Certificate Applied. Furthermore, school leavers pursuing the established Leaving Certificate preferred no work experience over both school organised work experience and part time job holding to a greater extent than those pursuing the Leaving Certificate Applied. However, preferences for part time job holding over no work experience at all could not be differentiated according to gender or the programme being pursued in senior cycle.

In Model 3 of Table 6.26a other factors are considered which may have an influence on the uptake of early work experiences in senior cycle. We now see the influence of the type of school attended on the uptake of early work experiences in senior cycle. In this model, school leavers attending secondary schools demonstrate a preference for school organised work experience over no work experience at all to a greater extent than those attending other school types, particularly vocational schools. Furthermore, school leavers attending secondary schools demonstrate a preference for both types of work experience over no work experience at all to a greater extent than those attending vocational schools. A local area effect is also evident: school leavers living in areas of high or moderate deprivation preferred no

work experience over both types of work experience to a greater extent than those living in areas of low deprivation. In addition, school leavers living in an area of moderate deprivation and to some extent those living in an area of high deprivation preferred no work experience over school organised work experience to a greater extent than those living in areas of low deprivation. In relation to parental social class background, we find that school leavers from social class backgrounds other than professional or non-manual demonstrate a preference for part time job holding over no work experience at all to a greater extent than those from higher social class backgrounds. It is also evident from Model 3 that household employment situation continues to exert an influence on part time job holding. School leavers living in households exposed to unemployment were less likely to engage in part time job holding or both types of work experience over no work experience at all to a greater extent than those who lived in households not exposed to parental unemployment.

It is important to note that based on the cross sectional nature of data, one cannot draw on the causality of these findings, however, one could observe that secondary schools may have a function in providing school leavers with access to the world of work in the absence of any other work experiences acquired. That is, school leavers attending secondary schools and males were more likely to have a school organised work experience compared to having no work experience at all. It is quite likely that this finding is influenced by the high levels of uptake of Transition Year school organised work experience in secondary schools. However, the previous model is a single level model and so the standard errors of these effects are likely to be overestimated. Thus, the next model (Table 6.27) re-estimates these findings in a variance components framework.

How do individual level and school level characteristics influence completion of different types of work experience undertaken at upper senior cycle when the probability of having different types of work experience is allowed to vary across schools? Multivariate results reported in the variance components multinomial logistic regression model in Table 6.27 address this question, focusing specifically on young people who completed the Junior Certificate and entered senior cycle, thus the

model is conditional on completing Junior Certificate and entering senior cycle. Given the finding from Table 5.3 in Chapter 3 that participation into programmes at senior cycle are influenced by school policy, in this model, we now allow for school effects on the probability of having different types of work experience before leaving school. In this model, we have a two-level hierarchical structure with pupils at level 1 nested within schools at level 2, allowing for the intercept βo to vary randomly across schools. The estimates presented have been obtained using a 2nd order PQL as for multinomial logit models, the 1st order MQL approximation may produce severely biased estimates (Rasbash et al., 2005).

Model 1 of Table 6.27 presents the results of the unconditional model which indicates that the proportion of students in a school who have experience of work only through school organised work experiences compared to the proportion of students who have no work experience varies significantly across schools. We also find that the proportion of students in a school who have experience of work only through part time jobs and those who have experience of work through both part time jobs and school organised work experiences compared to the proportion of students who have no work experience varies across schools. Thus, considerable school level variation is evident in relation to the proportion of students with different types of work experience. While Table 6.27 presents random effects from the baseline and final model, Table 6.28 presents the random effects from each stage of the analyses that were carried out in Mlwin. When individual level characteristics were entered into the model we found that the between school variance decreased for each of the contrasts, with the exception of the contrast between those who had a part time job only and those without any work experience. When school type was added to the model the between school variance decreased for each of the contrasts, with the exception of the contrast between those who had a school organised work experience only and those without any work experience.

Table 6.27: Results of variance components multinomial regression examining the factors associated with participation in different types of early work experiences in senior cycle (All Senior Cycle Leavers)

	SCHWK		Part time Job		Both PTJ & SCHWK	
	Model 1	**Final Model**	**Model 1**	**Final Model**	**Model 1**	**Final Model**
Intercept	-.490 (.081)	-.978 (.523)	.068 (.070)	-.241 (.500)	.059 (.074)	-.162 (.478)
Male		.409 (.122)*		-.273 (.111)*		-.066 (.108)
Non manual		.473 (.174)*		.480 (.147)*		.628 (.145)*
Skilled manual		.728 (.188)*		.378 (.166)*		.301 (.165)
Semi skilled manual		.561 (.236)*		.421 (.203)*		.372 (.202)
Unclassified		.309 (.257)		.575 (.221)*		-.231 (.232)
Junior Certificate		.218 (.192)		.134 (.163)		.231 (.164)
Leaving Certificate		.138 (.190)		-.280 (.165)		-.097 (.164)
Diploma or Higher		.342 (.218)		-.114 (.192)		.153 (.188)
Unclassified		.130 (.316)		.608 (.111)*		1.181 (.244)*
Full HH employment		.211 (.124)		.672 (.244)*		.567 (.109)*
Single parent family		.401 (.205)		-.232 (.198)		-.107 (.195)
High Deprivation		-.218 (.153)		-.235 (.155)		-.926 (.147)*
Moderate deprivation		-.349 (.148)*		-.013 (.145)		-.296 (.137)*
Comm/comprehensive		-.375 (.218)		-.215 (.220)		-.885 (.203)*
Vocational		-.379 (.176)*		-.664 (.183)*		-1.491 (.170)*
Mixed		-.347 (.170)*		.385 (.180)*		.314 (.165)
School mean SES		-.347 (.114)*		-.246 (.116)*		-.576 (.109)*
Diff curr senior cycle		.507 (.148)*		.294 (.157)		.880 (.146)*
Part time job 3rd year		.002 (.304)		2.938 (.141)*		2.720 (.141)*
Random Effect	**.403 (.124)**	**.009 (.054)**	**.345 (.094)**	**.250 (.069)**	**.454 (.106)**	**.157 (.065)**

Table 6.28: Summary of Random Effects of all models run

	SCHWK	PTJ	Both
Model 1 Unconditional model	.403 (.124)	.345 (.094)	.454 (.106)
Model 2 Individual characteristics	.344 (.117)	.343 (.093)	.423 (.102)
Model 3 Individual + School Type	.358 (.120)	.307 (.088)	.384 (.098)
Model 4 Individual + School Type + School Gender Mix	.335 (.118)	.293 (.086)	.387 (.099)
Model 5 Individual + School Type + School Gender Mix + School Mean SES	.342 (.119)	.296 (.086)	.383 (.098)
Model 6 Individual + School Type + School Gender Mix + School Mean SES + Currmix	.333 (.117)	.296 (.087)	.370 (.096)
Model 7 Individual + School Type + School Gender Mix + School Mean SES + Currmix + PTJ	.009 (.054)	.250 (.069)	.157 (.065)

The final model indicates that males are more likely to have a school organised work experience than none, suggesting that school organised work experience may help males who have no linkages to the labour market access the world of work. This pattern is also evident among those from lower social class backgrounds relative to those from professional social class backgrounds. Parental education does not differentiate those who have experience of work from school organised work experience from those who have none. It would also seem that students from living in areas of moderate socio-economic deprivation are less likely than those living in areas of low socio-economic deprivation to have experience of school organised work experience relative to none. In relation to school level characteristics we find that the higher the school mean SES intake, students are less likely to have experience of school organised work experience than none. Furthermore, as expected, students who attended a school with a differentiated curriculum are more likely to have a school organised work experience than no work experience at all. The final model suggests that part time job holding status in Junior Certificate year does not differentiate those who had obtained experience from school organised work experience from those who had no work experience at all.

Among senior cycle leavers, males are less likely than females to have gained experience of part time jobs relative to gaining no work experience at all. As above, this pattern is also evident among those from lower social class backgrounds relative to those from professional backgrounds. Senior cycle leavers living in households with full parental employment are more likely than those living in households exposed to unemployment to have gained experience of work through part time job holding than not have any work experience. In relation to school level characteristics we find that students attending vocational schools are less likely than those attending secondary schools to have a part time job than have no work experience. Furthermore, students attending a mixed school are more likely than students attending a single-sex school to have held a part time job than have no work experience at all. In general, the higher the school mean SES intake, students are less likely to have experience of a part time job than no experience at all. The final model suggests that part time job holding status in Junior Certificate year can differentiate those who had obtained experience from part time jobs from those who had no work experience at all. Students who previously held a part time job in junior cycle were more likely than those who did not to have obtained experience of the world of work through part time job holding in senior cycle than have no work experience at all.

Students who had experience of both types of work experience were then compared to those who had no work experience. We now see that gender is no longer a determinant. However, students from non manual backgrounds are more likely to have had experience of both than no work experience relative to those from professional class backgrounds. Students from households with full parental employment are also more likely have had experience of both than no work experience relative to those from households exposed to parental unemployment. Furthermore, there is also an effect of the local area. Students living in areas of high socio-economic deprivation are less likely to have had experience of both than no work experience relative to those living in areas of low socio-economic deprivation. In relation to school level characteristics, we find that students attending vocational schools or community/comprehensive schools are less likely than those attending secondary schools to have a both types of work experience than have no work

experience. In general, the higher the school mean SES intake, students are less likely to have experience of both types of work experience than no experience at all. Furthermore, as expected, students who attended a school with a differentiated curriculum are more likely to have both types of work experience than no work experience at all. Students who previously held a part time job in junior cycle were more likely than those who did not to have obtained experience of the world of work through part time job holding and school organised work experience in senior cycle than have no work experience at all.

6.6 Summary and Conclusions

This chapter has been primarily concerned with *Who works*? *When do they work*? and *What type of work* is undertaken. In doing so, the relationship between individual and school level characteristics and participation in early work experience is examined. Previous research in relation to gender and early work experience (particularly part time job holding) are relatively consistent (males are more likely to work at earlier stages than females), however the findings in relation to socio-economic background are more mixed. Furthermore, little is know about the relationship between contextual factors (school, local area) on early work experience.

This chapter has contributed to current knowledge regarding early work experiences in four important respects. Firstly this chapter extends the current empirical work in the Irish context on the determinants of part time job holding among students by considering the clustering of pupils within schools: that is, by considering the natural hierarchy in the data of pupils within schools. Secondly, the introduction of school level characteristics and a measure of socio-economic deprivation broadens the contextual discussion of early work experiences. Thirdly, this chapter broadens the interest in early work experiences to include school organised work experiences as well as part time job holding. Furthermore, this chapter considers the timing of when work experiences take place and the work histories of young people in an attempt to consider that the effect of previous early work experience may be dynamic in that previous work experience undertaken may affect 'current' or subsequent participation in early work experiences.

The rationale for considering early work experiences as a dependent variable has been motivated by studies of the labour market which consistently find that 'work experience' offers an advantage in the labour market. In doing so, a wider aim of the dissertation asks whether early work experiences acquired before leaving school can have a similar effect and if this can be generalised to all types of work experiences and to all types of students. If work experience does confer benefits, then it is important to consider the characteristics of those who gain work experience before leaving school.

Who gets work experience from part time job holding? The determinants of having a part time job

Section 6.3 considered three explanations for participation in early work experience from which hypotheses were derived. The first explanation argues that participation in part time jobs is dependent on gender, ability and unobserved characteristics such as motives or aspirations for young people, particularly for males. The second explanation focused on the role of parental values on the creation of human capital in young people, that is, parental influence on the decision to have a part time job; while the third considered the push and pull from the labour market and focused on the role of characteristics of the local area in which young people live as a key determinant.

Descriptive results indicated that a substantial proportion of young people engage in part time jobs before leaving school (53 per cent) and almost half of senior cycle leavers obtain experience of a school organised work experience, illustrating that within the Irish educational system a considerable percentage of students have had contact with the world of work through the curriculum. For all school leavers, irrespective of when leaving school, the proportion becoming involved in part time jobs during junior cycle increases as students move through the education system; but there was little evidence of heavy investment in working in terms of job holding for multiple years through junior cycle. Figure 6.4 illustrated that participation rates in term time jobs are highest in 5th year, with rates declining in 6th year among those who completed senior cycle.

Multilevel multivariate analyses were then conducted in four parts. Section 6.5.2 considered participation in part time jobs among junior cycle leavers and senior cycle leavers. The analyses indicated that among junior cycle leavers gender and parental employment rather than parental education, social class background or family structure are key determinants of having a part time job among junior cycle leavers. The model indicates that school variation is no longer evident when individual characteristics are accounted for. Furthermore, when school characteristics are taken into account, the effect of the local area is no longer significant. Analyses pertaining to the probability of having a part time job in junior cycle for junior cycle leavers and senior cycle leavers displayed considerable differences in the characteristics of young people who held part time jobs in junior cycle. We saw from the analyses that among junior cycle leavers, males and those living in households with full parental employment were more likely to work while among senior cycle leavers males and those whose parents have lower levels of education were more likely to work. However differences evident may be due to sample selection bias because parental education levels may be higher among those who made the transition to senior cycle in the first place. A discussion of selection bias was extended in the analyses pertaining to the probability of having a part time job in junior cycle for senior cycle leavers. It was deemed that there is likely to be sample selection bias in this set of analysis. That is, it may be that there are some unobserved variables that exist which may influence a young person to make the transition from junior cycle to senior cycle (and so the probability of being in the sample), but these unobserved characteristics may also influence the decision to have a part time job in junior cycle. Among senior cycle leavers, the proportion of students who had a part time job in junior cycle varied across schools even when individual and school level characteristics were taken into account.

The probability of having a part time job in senior cycle was then considered for senior cycle leavers. The final model indicated that males, students from single parent families, and those attending vocational schools were less likely to have a part time job in senior cycle. Students living in households with full parental employment, those who had participated in Transition Year and had a Transition

Year work experience and students who had a part time job in junior cycle were all more likely to have a part time job in senior cycle. The analyses considered that there may be unobserved individual level variables that affect both the dependent variable (part time job in senior cycle) and the probability of being the sample (being a senior cycle leaver). That is, bias may arise because an unobserved variable such as *diligence* or *effort* may affect both the decision to make the transition from junior cycle to senior cycle and the decision to have a part time job in senior cycle. The implication of such a scenario is that the error term may be correlated with the explanatory variable, causing bias even asymptotically. However, the introduction of variables pertaining to part time job holding in junior cycle may reduce this bias. That is, the expected value of the error term might partly be accounted for by the introduction of variables pertaining to part time job holding thus removing that part of the error which is correlated with the explanatory variable and therefore avoiding the bias. The assumption is that having had experience of a part time job in junior cycle affects the decision to have a part time job in senior cycle. An unobserved variable such as *maturity or work readiness* may affect the decision to have a part time job in junior cycle and the decision to have a part time job in senior cycle. Higher levels of *maturity or work readiness* may lead to the decision to take responsibility of having a part time job in junior cycle, and so students who work in junior cycle may be more mature or ready for the world of work (informal) than those who do not work. As a consequence of this, regressing part time job status in senior cycle on part time job status in junior cycle overestimates the influence of having a part time job in junior cycle because it gives having a part time job in junior cycle credit for the influence of *maturity* or *work readiness*. The problem is that students have chosen/made the decision to work in junior cycle, rather than having this level forced upon them as would be the case in a controlled experiment. Further analyses were conducted using a two-stage Heckman procedure (not shown in text) (Heckman 1976), estimating the probability of being a senior cycle leaver (having made the transition from junior cycle to senior cycle v not) and the probability of having a part time job in senior cycle. When the inverse mills ratio is entered into the model, the estimated coefficient for part time job in junior cycle continues to be

statistically significant. The inverse Mills ratio in the corrected model is also statistically significant lending support for the sample selection bias.

Section 6.5.3 considered the timing of when students who completed second level education hold part time jobs. It is important to note that only school leavers who completed second level education are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample. Multilevel analyses were conducted to consider the factors associated with having a part time job in 1st year and each subsequent year of second level education. The analyses indicated that school variation is not evident in the proportion of students who have a part time job in 1st year among those who completed second level education. Students from non manual class backgrounds were less likely to have a part time job than those from professional class backgrounds as were those whose parents had higher levels of education. Students living in areas of high socio-economic deprivation were more likely to hold a part time job in 1st year than those living in an area of low deprivation. The addition of school characteristics accounted for school variation in the probability of part time job holding in 2nd year and those whose parents had higher levels of education were less likely to hold a part time job while those living in an area of high deprivation were more likely to have a part time job. Previous part time job status in 1st year was significantly associated with having a part time job in 2nd year and when this variable was added to the model, clear class effects rather than parental education effects became evident. Model 4 of Table 6.13 indicated that those from non manual and semi skilled manual class backgrounds were more likely to hold a part time job in 2nd year. 3rd year represents an important examination year in the Irish context. As before, the addition of school characteristics accounted for school variation in the probability of part time job holding in 3rd year, males were more likely to work in this year than females, while students whose parents had higher levels of education were less likely to work than those whose parents had lower levels of education. Previous part time job holding in 1st or 2nd year was significantly associated with having a part time job in 3rd year and the coefficient for those from non manual and semi skilled manual class backgrounds approached significance. Figure 6.4

illustrated that part time job holding reaches a peak in 5th year. The addition of individual characteristics accounted for school variation in the probability of part time job holding in 5th year. Students from skilled manual backgrounds were more likely to work than those from professional backgrounds as were those who had participated in Transition Year school organised work experience. Students whose parents had higher levels of education were less likely to work as were those from single parent families. Previous part time job holding in 3rd year – the Junior Certificate year - was significantly associated with having a part time job in 5th year. Finally, analyses were considered in relation to part time job holding in 6th year – the final examination year. Even when individual and school level characteristics were accounted for, there continues to be school variation in the proportion of students that have a part time job in 6th year. We find that students from a skilled manual class background are more likely to have a part time job in this year than those from a professional class background. Furthermore, those whose parents have higher levels of education are less likely to work than those whose parents have lower levels of education and students attending schools with a higher mean socio-economic student intake are less likely to have a part time job in this examination year. Furthermore, previous part time job holding in 3rd year and 5th year was significantly associated with having a part time job in 6th year.

The analyses regarding when students work reveals substantial class differences in part time job holding across second level education. While students whose parents have higher levels of education are less likely to have part time jobs at all stages of second level education, students from lower social class backgrounds, particularly those from skilled manual backgrounds tend to be more likely to hold part time jobs than those from professional class backgrounds. These findings indicate that parental attitudes towards work may vary across social groups. Furthermore, school variation is generally accounted for when school characteristics are included in the model suggesting an effect of school policy but also a peer influence effect. There was no evidence to suggest a push or pull from the labour market. As before, it is important to stress that only school leavers who completed second level education are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample.

Who gets work experience from school? The determinants of having a school organised work experience

Section 6.2 provided an overview of school organised work experiences in the Irish context, focusing on school organised work experiences as part of Transition Year, the Leaving Certificate Applied and the Leaving Certificate Vocational Programmes. While each of these work experiences have different aims and objectives (some more clearly defined than others) school organised work experience as part of the Leaving Certificate Applied can be deemed as the most important in terms of providing connections with the world of work and with employers, due to the specific objectives of the programme and the amount of work experience on offer as part of this programme. Levels of uptake of school organised work experience were found to be highest among Transition Year and Leaving Certificate Applied students while levels of uptake were significantly lower among Leaving Certificate Vocational Programme students, however, a higher proportion of those who completed a six year cycle engaged in an LCVP school organised work experience than those who completed a five year cycle.

Section 6.5.4 considered participation in school organised work experience among senior cycle students. It is important to note that only students who participated in these programmes are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample. Sample selection bias may extend to a number of selection processes including selection into a school that offers the programme in question, selection into participation in the programme, as well as selection into work experience provided as part of the programme. The determinants of having a school organised work experience was estimated for each of the programmes separately.

In determining the factors associated with having a Transition Year school work experience, school variation in the proportion of students who had a school organised work experience remained even when individual and school level characteristics were taken into account. The observed individual level variables did not reach significance leading us to suggest that participation in TYSCHWK is

random based on these observed individual level variables. However, students attending vocational schools were less likely to have a TY SCHWK than those attending secondary schools. Furthermore, when previous part time job status in junior cycle was added to the model, Transition Year students who had a part time job in 2nd year were more likely to have a work experience in Transition Year.

In determining the factors associated with having a Leaving Certificate Applied school work experience, school variation in the proportion of students who had a school organised work experience was accounted for when individual level characteristics were taken into account. The observed individual level variables did not reach significance leading us to suggest that participation in LCA SCHWK is random based on these observed individual level variables (however the coefficient for *primary or lower level* of parental education did approach significance). Furthermore, when previous part time job status in junior cycle was added to the model none of the coefficients reached significance, indicating that those who work in junior cycle may not be more likely to opt for a vocational track in senior cycle. This idea will be considered in more detail in the following chapter.

Finally, similar findings were evident in relation to the factors associated with having a Leaving Certificate Vocational Programme school work experience, school variation in the proportion of students who had a school organised work experience remained even when individual and school level characteristics were taken into account. The observed individual and school level variables did not reach significance leading us to suggest that participation in LCVP SCHWK is random based on these observed individual level variables However, when previous part time job status in junior cycle was added to the model LCVP students who had a part time job in their junior cycle year were less likely to have an LCVP school organised work experience. Again, it is important to note that only students who participated in these programmes are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample. This may account for why none of the individual level variables reached significance.

Do certain types of students engage in certain types of work experience?

The final set of research questions addressed whether certain types of students engage in certain types of work experience. In doing so, it asked whether it is likely that work experience offered by the school (school organised work experience) provides access to the world of work for those who do not have access to part time jobs. A multilevel multinomial model was conduced to answer these questions, and findings were evident in relation to gender and social class background. In relation to gender the findings indicated that males are less likely than females to have gained experience of part time jobs are more likely to have a SCHWK relative to gaining no work experience at all, suggesting that school organised work experience may help males who have no linkages to the labour market. In relation to social class background, students from lower social class backgrounds are more likely than those from higher social class backgrounds to have gained experience of either part time jobs or school organised work experience than have no work experience at all. Furthermore, students from a non manual background are more likely to have participated in both part time jobs and school organised work experience than have no work experience at all. These findings indicate that school organised work experience caters for a certain type of student. However parental education levels does not differentiate those who have different types of work experience from those who have none. Reinforcing the influence of parental networks on young peoples' probability of having access to work, students from households will full parental employment are more likely to have a part time job or both a part time job and a school organised work experience than have no work experience at all.

Furthermore, there is a local area effect. It would also seem that students from living in areas of moderate socio-economic deprivation are less likely than those living in areas of low socio-economic deprivation to have experience of school organised work experience relative to none. Students living in areas of high socio-economic deprivation are less likely to have had experience of both than no work experience relative to those living in areas of low socio-economic deprivation.

The addition of school characteristics accounted for school variation in the probability of having a school organised work experience than no work experience at

all. As expected, students who attended a school with a differentiated curriculum are more likely to have a school organised work experience or both types of work experience than no work experience at all. In general, the higher the school mean SES intake, students are less likely to have any type or combination of work experience than no experience at all. Furthermore, students attending a mixed student intake school are less likely to have a school organised work experience but more likely to have part time job or both types of work experience relative to none. Finally, part time job holding status in Junior Certificate year does not differentiate those who had obtained experience from school organised work experience from those who had no work experience at all, however those who had a part time job in 3rd year are more likely to have a part time job or both types of work experience than none.

Considering the characteristics of those who had a school organised work experience only relative to none, we find that males, those from lower social class backgrounds, those living in areas of moderate deprivation, and those attending a school with a differentiated senior cycle are more likely to have a school organised work experience relative to none. However, students attending single-sex schools, and students attending schools with higher average student socio-economic intakes are more likely to have no work experience than experience of school organised work experience only.

Chapter 7: Early Work Experiences and Educational Outcomes

7.1 Introduction

A significant amount of controversy surrounds part time job holding during term time as studies in the Irish context have indicated that part time job holding during second level, particularly intensive amounts of time spent in these jobs, can have a negative influence on retention at second level education and educational performance in State examinations (namely the Junior and Leaving Certificate programmes, see for example McCoy and Smyth 2004). This controversy is perhaps most commonly played out in terms of the developmental/zero sum theoretical arguments as outlined in Chapter 1. Against this backdrop, Irish educational policy has for the past almost 40 years advocated the provision of school organised work experiences as part of the curriculum for second level education – a form of work experience that has practically and paradoxically gone un-noticed in the Irish empirical literature. To date, studies in the Irish context have not yet considered how the work experience element of programmes fare in terms of educational outcomes, nor have they considered whether school organised work experience can provide a suitable form of learning.

While Chapter 6 considered the factors associated with having an early work experience, this chapter now examines the relationship between early work experiences and the educational outcomes of school leavers. In doing so, it serves several objectives that have been neglected in prior research. Firstly, by considering school organised work experiences, this chapter aims to offer a better understanding of how different types of early work experiences undertaken before leaving school are related to educational outcomes. While addressing these issues, this chapter also attempts to advance current empirical and theoretical knowledge pertaining to the influence of early work experiences by examining the extent to which the influence of working in part time jobs can be extended or generalised to the influence of working in a school organised work experience. These analyses are motivated by the work of other academics who have offered suggestions to eliminate the negative effects of students term time work on school performance by linking what students do in their after school jobs to what they do at school (see for example Stern et al., 1997 in the US, Howieson et al., 2006 in Scotland). Secondly, while a recurring issue

in the literature has been that it is not working per se that has a negative influence on academic performance but the intensity of the work undertaken as measured by hours spent working, much less attention has been paid to examine whether the effect is dynamic: in that work in one year may affect attainment during the course of second level. That is, this chapter examines whether the accumulation of part time job holding over a number of years (for example in 2nd, 3rd and 5th years) has a negative influence on academic performance in the final year of schooling. Furthermore, this chapter considers whether differences in educational outcomes exist according to the types of early work experiences undertaken by school leavers before leaving school – that is, part time jobs and school organised work experiences. Because school organised work experiences are an actual component of the second level curriculum (see summary provided in Table 6.1 in the previous chapter), the general aim is to infer whether school organised work experience can 'make up' for the negative effects of part time job holding, particularly in terms of retention and examination performance.

A brief overview of the literature (including empirical research, theoretical frameworks and methodological literature) serves to frame the empirical analyses and is outlined in section 7.2. Section 7.2 firstly considers the role of early work experiences on retention and progression through the second level education system. It then examines the relationship between early work experiences and educational performance in State examinations and consider the influence of early work experiences on the time spent in further educational pursuits. Following a description of the research questions in section 7.3, the data, measurement of variables and analytic strategy are discussed in section 7.4. Section 7.5 presents the findings while section 7.6 then offers a conclusion and discussion of findings from this chapter.

7.2 Literature Review

Three types of literature have been considered while compiling this chapter; the empirical, theoretical and methodological. This section begins by considering the broader literature outlining the determinants of educational attainment.

In the status attainment tradition in sociology, as pioneered by Blau and Duncan in *The American Occupational Structure* (1967) family background and mental

ability are considered to be ultimate causes of educational attainment and this theoretical position is arrived at using data from a cross-section of adults. This claim is grounded on the purported existence of a specific causal mechanism that relates individuals' expectations and aspirations for the future to the social contexts that generate them. This particular explanation is largely associated with the Wisconsin model of status attainment (Sewell et al., 1969; 1970) based on longitudinal data of high school males. According to the original model, the joint effects of high school students' family backgrounds and mental abilities on their eventual educational attainments can be completely explained by the expectations that others hold of them. In particular, significant others such as parents, teachers and peers – define expectations based on student's family background and observable academic performance. Students then internalise the expectations crafted by their significant others. In the process, the expectations become individuals' own aspirations, which then compel achievement motivation. Critics of this status attainment perspective argued that structural constraints such as the allocative functions of schools (Collins 1979) or the stratification of opportunity (Bourdieu and Passeron 1977; Bowles and Gintis 1976) should be at the centre of all models of educational attainment, and hence that concepts such as aspirations and expectations offer little or no explanatory power. Bourdieu (1973) dismissed all work that asserts that associations between aspirations and attainments are causal. Rather, for Bourdieu, the unequal opportunity structures of society 'determine aspirations by determining the extent to which they can be satisfied' (Bourdieu 1973:83). And, as such, aspirations have no autonomous explanatory power because they are nothing other than alternative indicators of structural opportunities and resulting attainment.

As outlined in Chapter 1, a further body of research has focused on the development of the orientation towards work in adolescence and this has merged with the literature on educational attainment. According to Erikson, adolescence and identity formation occur in many spheres including work role attitudes. The family, the school and the peer group are recognised as central contexts for the socialisation of adolescents. Despite the prevalence of part time employment among adolescents, job holding is often seen as a peripheral or secondary activity for young people, and emphasis on work as an activity is generally given to the socialisation of adults rather

than adolescents. Studies of the life course and traditional models of human capital typically assume that individuals' work career begins only when their formal schooling ends. Educational careers and occupational careers are usually treated as temporally non-overlapping. Studies that take into account this overlap are recent in the Irish context and as a result, relatively little is known about the relationship between high school students' work lives, school achievements and later life outcomes. The following section considers the international literature on the relationship between part time job holding and educational outcomes.

International Research on the relationship between part time job holding and educational outcomes.

The empirical literature in Ireland, the UK and internationally is replete with references to the relationship between part time job holding and educational performance (Beduwe and Giret 2002; Bennell and Ncube 1994; Carr et al. 1996; D'Amico 1984; Dagenais et al. 2002; Davies 1999; Dustman et al. 1997; Entwisle et al. 2000; Leonard 1995; Light 2001; Lillydahl 1990; Lindsay et al. 1994; Marsh 1991; McCoy and Smyth 2004; McKechnie et al. 2004; McKechnie et al. 1994; McVicar and McKee 2001; Morgan 2000; Mortimer 2003; Naylor 1999; Payne 2001; Payne 2003; Rhum 1997; Steinbricker 2003). As outlined earlier in this thesis, early empirical research into the effects of working while in education was first conducted by Steinberg et al., (1982) Steinberg and Greenberger (1980) and Greenberger et al., (1980). These studies began by outlining the rates of part time job holding among young people while still in school. When it was realised that employment incidence and intensity increases as young people become older, questions began to arise about the effect of part time job holding on attainment. Studies of the relationship between part time job holding and educational attainment began by comparing the prevalence of the education outcome in question according to those who worked and those who did not. For example, Steinberg et al., (1982) in the United States found that workers achieve slightly lower grade point averages than non-workers. Later, more rigorous statistical analysis (OLS estimation) was undertaken by D'Amico (1984) who found that working part time does not have a detrimental effect on education attainment.

Studies of the relationship between part time employment and educational attainment are generally placed in the theoretical framework of the zero sum model (Coleman, 1961; D'Amico, 1984; Singh 1988; Marsh; 1991; Warren, 2002). The zero-sum model argues that time spent on employment during education leads to a reduction in the amount of time spent on educational activities such as homework or time spent studying. In this vein, it is generally argued that participation in extra-curricular activities which could improve psychological adjustment and commitment to schooling, may be hampered by involvement in part-time employment (Lewin-Epstein, 1981; D'Amico, 1984). Concern with whether part time job holding is a zero sum game, studies then began to consider the intensity of work undertaken by students on their academic attainment. While much of the American literature has focused on the unfavourable academic consequences of employment in the form of part time job holding during high school (Steinberg et al., 1982; McNeal 1997; Mortimer and Finch 1986), there is evidence from the American literature that working a small amount of hours may be beneficial to studying. That is, the zero sum model is not necessarily incompatible with positive returns to education from working part time. For example, some studies make the point that grades are highest among students *who work* but who do not work intensively (see for example Schill, McCartin and Meyer 1985) thus indicating that part time job holding can complement learning. On this note, Holland and Andre argue that the marginal return to working during full time education might be higher than the marginal return of homework. If one assumes that educational skill accumulation suffers from diminishing marginal returns and that working part-time during schooling results in a positive amount of educational skill accumulation (Holland and Andre, 1987), then the net pay-off to attainment from working few hours per week may be larger than investing a few hours more on homework per week.

A problem encountered by previous empirical work involves the difficulties in determining the causal ordering of the variables included in empirical models, especially when the variables are measured at the same point in time and when no prior information has been obtained (as in the case of the school leaver survey).

Empirically, the main difficulty in identifying and estimating the causal effect of part time work on educational attainment lies in the potential endogenity of working part time during school and the problems of unobserved heterogeneity and unobserved confounding factors. As a result the causal relationship between part time job holding and educational attainment is unclear. Studies using multiequation models such as structural equation modelling speculate that causality may go both ways in the relationship between employment and schooling outcomes (Bachman and Schulenberg 1993; Singh 1998; Lillydahl 1990, Stern et al., 1997). Student academic performance may be affected by whether and how much they work in their part time jobs. However, the opposite may also be true as well. That is, students' school performance may well influence whether and how much they work. Intuitively this makes sense. The decision to get a job or to adjust the number of hours worked per week is most likely based on among other things school performance. Students who are doing poorly in school may turn to employment as an alternative avenue for achievement or fulfilment. Students who are doing well might limit how much they work in the hopes of maintaining success.

Furthermore, if students who are less engaged in school are more likely to have a part time job, then part time job holding may be associated with unfavourable academic outcomes, even in the absence of a causal effect. That is, the choices and consequences of working while attending school are intertwined and this endogeneity issue complicates any attempt to evaluate a causal effect been part time job holding and academic performance (Rothstein 2007). Other difficulties include the role of unobserved factors. That is, the decision of young people to work is likely to be related to unobserved characteristics as well as observed characteristics that are in turn related to academic attainment such as motivation or ability. Earlier studies of part time job holding indicate that compared to students who did not have a part time job, employed students had lower grades and educational expectations, spent less time studying, and were less engaged in school *even before they started working* (Steinberg and Dornbusch, 1991; Steinberg et al., 1993)[63]. If unobserved factors

[63] It should be noted that these methodological problems are enhanced when bias is introduced into the survey at the sampling process. Potential biases may include the exclusion of students away from school on the testing days biases the sample against individuals with high rates of absenteeism (Rhum 1997).

influence the decision to work, OLS estimates may lead to biased estimates of the 'effect' of part time work. That is, it may overstate or understate the detrimental effect of part time work. The following sections now consider the literature in relation to the four outcomes discussed in this chapter. The four educational outcomes estimated in this chapter are concerned with retention and educational progression at second level, track allocation at upper senior cycle, examination performance in State examinations and participation in further or higher education upon leaving second level education.

Previous research on part time job holding and retention

This section now focuses on previous research on part time job holding and retention. It begins by offering findings from Irish data and then considers international findings. McCoy and Smyth (2004) using earlier years of Irish School Leaver Survey data indicate that when controlling for the social background and region of residence of school leavers, the small minority of students who work in a part time job while in first year are found to be almost two and a half times more likely than students without experience of a part time job to drop out of school before completing the Junior Certificate (which marks the end of compulsory second level education in the Republic of Ireland). In addition, among those who continued on to senior cycle, school leavers who had a part time job in 3rd year were more likely to drop out of school before completion of the senior cycle.

As with international studies (for example see D'Amico 1984; Steel 1991; Grasky 1996), the relationship between part time job holding and school drop-out was found to vary according to the number of hours worked; students working fewer than 10 hours per week in a part time job did not differ significantly from those without a part time job in their drop out rates, those working 11 to 15 hours were 1.6 times more likely to drop out than those not working while the relevant ratios were 2.1 for those working 16 to 20 hours and 2.6 for those working more than 20 hours per week. However, the cause and effect of the relationship between part time job holding and drop out from school could not be determined because of the cross-sectional nature of the data being used in their study. That is, it is questionable as to whether the negative correlates of (extensive) employment during high school are

actually *caused* by the labour force participation of a student or are simply a reflection of unmeasured, pre-existing differences in educational performance or ability, or indeed values or other characteristics which foster academic success between students who work different amounts. This point has been raised by a number of international studies (Steinberg, Fegley and Dornbusch 1993; Bachman and Schulenberg 1993; Schoenhals, Tienda and Schneider 1998). It is entirely plausible that students who work long hours (either by choice or necessity) may be in fact less interested in and committed to school even before they enter the labour force. Therefore, any apparent differences between students who work varying amounts of hours per week may be attributable to those pre-employment differences. Warren et al (2000) illustrate this point by outlining the research of Steinberg and colleagues (Steinberg, Fegley and Dornbusch 1993) and Scholentals, Tienda and Schneider (1998) who found that students who worked more than 20 hours per week were initially less engaged in school and were granted more autonomy by their parents than other adolescents. Likewise, Scholentals and colleagues found that much of the adverse impact of employment during high school could be attributed to 'pre-existing differences among youth who elect to work at various intensities'. Because many of the factors that influence student employment behaviour also influence key outcomes such as drop out, it may be that decisions to work part time and school retention may be simultaneously determined. These selection issues are of central importance. A priori, the relationship between part time employment while still in full time education and the school leaving decision is unclear. On the one hand, working and studying at the same time may be an indication that the teenager wishes to join the labour market as soon as possible. On the other, it may provide the young person with first-hand information about the negative aspects of jobs which are available for low skilled labour and this may discourage the teenager from entering the full time labour market. In order to disentangle these effects, Dustmann, Rajah and VanSoest (1996) use a three equation model to consider the links between working part-time, school performance and school leaving decisions and conclude that working part time does not necessarily have adverse impacts on school performance or does it encourage early school leaving. Ehrenberg and Sherman (1987) used an instrumental variables approach to deal with endogeneity and

conclude that there is an adverse effect on the probability of staying on in education from working part time during college.

Previous research on early work experiences and track allocation at senior cycle

The research to date suggests that having a part time job has a differential effect on academic and vocational students. In the UK Payne (2001, 2003) using the England and Wales Youth Cohort Study indicates that part time job holding during Years 12 and 13 tended to have a negative impact for academic A/AS examination results, particularly among those who worked intensively, but no such result was evident among those advancing to vocational qualifications[64], concluding that part time job holding may be less of a problem for students on vocational courses than for students on A/AS level courses. Furthermore, Stern et al., (1997) in the US find that working longer hours is generally associated with lower grades, but that the effect is less pronounced among co-op students than non-co-op students. While McCoy and Smyth (2004) in Ireland found that LCVP and LCA students had higher levels of part time job holding than those pursuing the established Leaving Certificate, Irish research has not yet considered the effect of part time job holding on entry into a vocational versus academic curricula. Does part time job holding lead students into vocational tracks at senior cycle? This question will be explored in this chapter.

Previous research on early work experiences and examination performance

Irish studies relating to the relationship between early work experiences and educational attainment in examinations have generally focused on part time job experience (See for example McCoy and Smyth 2004; McVicar and McKee 2001; Morgan 2000; Smyth et al. 2004). The following section considers research on early work experience and examination performance in the Irish context.

Junior Certificate Performance

Findings indicate that exam grades at Junior Certificate level are found to be higher among girls, students from professional backgrounds and those with higher prior

[64] It should be noted that Payne (2001, 2003) outlined that the model for achieving Level 3 vocational qualifications had far fewer significant predictor variables than the model for total A/AS score and this could have been due to a much smaller sample size.

ability levels[65] (Hannan et al 1996; McCoy and Smyth 2004). In terms of educational attainment in the Junior Certificate, McCoy and Smyth found using OLS methods that students who hold part time job(s) are found to achieve significantly lower exam grades, on average than those who do not[66]. As before, they found that the intensity of the hours spent in a part time job was of importance – controlling for gender, social class, parental employment, region of school and ability, students who work fewer than ten hours did not differ in average grades from non-workers. However, students who worked more than ten hours per week had significantly poorer grades that non working students with those who work more than twenty hours per week performing particularly worse. When student orientations were taken into account it was not part time job holding during term time per se that had a significant association with junior certificate performance but the intensity of the work undertaken[67]. They concluded that it may be that students' aspirations are negatively affected by working part time, a causal relationship that cannot be untangled without longitudinal data measuring attitudes before young people began working[68].

Leaving Certificate Performance

McCoy and Smyth (2004) also examine the impact of a range of factors on Leaving Certificate performance overall but also the impact of specified factors on progress in the Leaving Certificate relative to how students perform in the Junior Certificate examination. Findings indicate that girls and students from professional backgrounds do better overall and make more progress over the senior cycle. Students who work part time in their Leaving Certificate year achieve significantly lower grades overall

[65] As measured by verbal reasoning and numeric ability tests.

[66] These findings are replicated in studies internationally (Payne 2003; Dustman et al 1996; Lindsay et al 1994; McNeil 1994; Bachman 1993; Steinberg et al 1982). Dustman et al. (1996) using data from the National Child Development Study suggest that working part-time may worsen examination performance: those who worked while at school had on average two O level and CSE grade 1 passes, while those who did not work had on average about two and a half. The negative effect on examinations of working part time is largest and most significant when many hours are worked each week, no significant effect was detected from part-time jobs involving less than six hours per week. They do however outline that taking into account of the endogenity of part time hours could reduce the level of significance of the hours effect as was the case for Dustman, Rajah and van Soest (1995) (although the sign remained negative).

[67] This is consistent with research from the US and Australia which indicates that having a PTJ tends to draw students away from their studies and leads to an increased drop out rate (Robinson 1999; Marsh 1991).

[68] Mortimer and Finch (1986) found that students without a PTJ had significantly higher academic self-concept scores in the 11th grade, and higher occupational aspirations in 12th grade.

and the performance gap increases with the number of hours worked. However, students who work in their Leaving Certificate year also differ from non-working students in their Junior Certificate performance. Controlling for Junior Cert grades, working students are found to achieve lower exam grades, by 0.6 grade points on average per subject, than those who do not work. Even those working fewer than 10 hours per week appear to achieve lower grades than those who do not work - suggesting that the relationship between educational performance and part time work is similar to that in the UK rather than in the US. Unlike at junior certificate, part time work is found to have a negative relationship with Leaving certificate performance, even when controlling for student attitudes to schooling, with working students achieving almost half a grade point per subject less than their non-working students with similar orientations to schools. Using propensity score matching, Smyth and McCoy (2004) report that when matching Leaving Certificate students who had a part time job with those who did not in terms of parental social class background, attitudes and levels of involvement in out-of –school activities, those who did not work continue to under-perform at Leaving Certificate. Using this (strata) matching technique provides a lower estimate of the performance gap between the two groups of students.

Again, the international literature suggests that the main difficulty in identifying and estimating the causal effect of part time work on educational attainment lies in the potential endogeneity of working part time during school. More recently, other studies have also highlighted the importance of taking endogeneity into account when estimating the relationship between part time job holding and educational attainment (Eckstein and Wolpin 1999; Steinbrickner and Steinbrickner 2003; Dustmann and van Soest 2007; Montmarquette et al., 2007; Rothstein 2007). Schoenhals, Tienda and Schneider (1998) argue that the negative effect of part time job holding on academic performance is largely attributable to pre-existing differences among youth who elect to work at various intensities. Once such observable differences are taken into account, any significant impact on educational attainment form working disappears. This finding is also reported by Warren, LePore and Mare (2000). That is, pre-existing differences between more and less intensively

employed students fully account for the association between employment intensity and grades in academic courses. Ehrenberg and Sherman (1987) used an instrumental variables approach to deal with endogeneity and conclude that there does not appear to be an adverse effect on grade point average from working part time during college though there is an adverse effect on the probability of staying on in education. Aside from instrumental variables approaches, other studies have used alternative approaches other than selection methods when taking endogeneity into account. Singh (1998) used a structural equation model and found that working in Grade 10 has a small detrimental effect on achievement in English, Reading and Social Science when gender, socio-economic status and previous attainment are taken into account. This method has also been used by Stern (1997) and Warren, LePore and Marsh (2000,2001) who used the longitudinal data from the NELS88 – a longitudinal survey of the 8th grade student cohort of 1988. They used traditional regression models and a simultaneous equation model to consider the relationship between employment during school in Grade 10 on academic outcomes in Grade 10. Their findings suggest that intensive employment does not translate to lower grades in academic courses. Lillydahl (1990) also used a two-stage least squares approach also arguing that part time work and educational attainment are likely to be simultaneously determined. Despite different methodologies and datasets, for the most part the international literature points to no or a small negative effect of part time job holding on educational performance. However, it is important to note that many of the studies cited here have used longitudinal data.

A second confounding issue raised by Rothstein (2007) in addressing the impact of part time job holding during school term on grades involves the drop-out decisions of young people. Grade point average for the Leaving Certificate examination is not observed for young people who dropped out of school. As shown in an earlier chapter, drop outs and non drop outs have disparate work behaviour and may also have differences in unobservable characteristics, indicating a sample selection issue for further consideration.

Previous research on Post School Educational Participation

In terms of the relationship between part time job holding and access to further education, McCoy and Smyth (2004) report that students that hold a part time job while at school are significantly less likely than non workers to go on to further education[69]. Controlling for background factors and educational attainment, post school educational participation is found to be significantly lower among those who engage in a part time job holding while in school. They conclude that the effect of employment on the likelihood of engaging in further study is partially measured through educational attainment: in other words, part time workers are less likely to go on to further education partly because of their lower educational qualifications in the first place. However, at the same level of educational attainment, those who held a part time job were less likely to pursue further studies than those who did not, concluding that a heavy investment in part time work appears to channel them away from post-school study, a pattern which was also evident in the US (Marsh 1991). While the study provides some very interesting findings with regard to part time job holding while at school and educational outcomes, the measurement of part time job holding was somewhat unsatisfactory as it was quite broad and did not consider when these work activities actually took place. Furthermore, McCoy and Smyth found that students who work part time at school are also less likely than those without a part time job to go on to apprenticeship.

7.3 Research Questions and Hypotheses

The primary aim of the chapter is to examine the relationship between early work experiences and educational outcomes. The four educational outcomes estimated in this chapter are concerned with retention and educational progression at second level, track allocation at upper senior cycle, examination performance in State examinations and participation in further or higher education after leaving school. The specific research questions addressed are;

- Does retention and educational progression vary across schools?

[69] Further education was conceptualised in terms of a dummy variable where 1=participation in full education or training approx one year after leaving school, contrasted with any other destination.

- Does part time job holding in junior cycle have a significant influence on retention in second level education?
- Does part time job holding in junior cycle have a significant influence on progression through second level education?
- Does participation in school organised work experience have significant influence on retention at upper senior cycle?

In Ireland, while the choice of the type of upper secondary school is considered free – that is, it is left to pupils and their parents, the reality of this decision is more complex. Allocation to upper senior cycle is also subject to tracking devices based on the results of academic tests (Junior Certificate) and teachers' evaluations of the pupil, as well as school policy. From this premise, the following question emerges

- Does part time job holding in junior cycle have a significant influence on the successive track undertaken in senior cycle?

Furthermore,

- Does educational performance in State examinations vary across schools?
- Do early work experiences have an influence on performance in State examinations?
- Does the relationship between hours worked and performance in examinations differ across different types of tracks for Leaving Certificates?
- Does participation in further education vary across schools?
- Does early work experiences undertaken before leaving school have a significant influence on participation in further and higher education since leaving school?

Before answering these questions, is it pertinent to offer some expectations as to what the analyses may reveal. Based on the literature above, we hypothesise that firstly having a part time job, particularly in 1st year at second level education is associated with drop out from school and reduced educational progression. That is, it is hypothesised that part time job holding is associated with a lower likelihood of progressing through second level education. Secondly, we expect that having a part time job in junior cycle will be associated with pursuing a vocational track rather than an academic track at senior cycle on the assumption that these young people

may be more 'work-orientated' to begin with. Thirdly, based on a review of the international literature, we expect that having a part time job in the year of the Leaving Certificate examination will result in a differential effect for those who are pursuing the Leaving Certificate Vocational Programme and those who pursue the established Leaving Certificate, and finally, we expect that having a part time job during second level education will be associated with a lower probability of entering further education. More detailed expectations will be given as each model is discussed.

Methodological Considerations

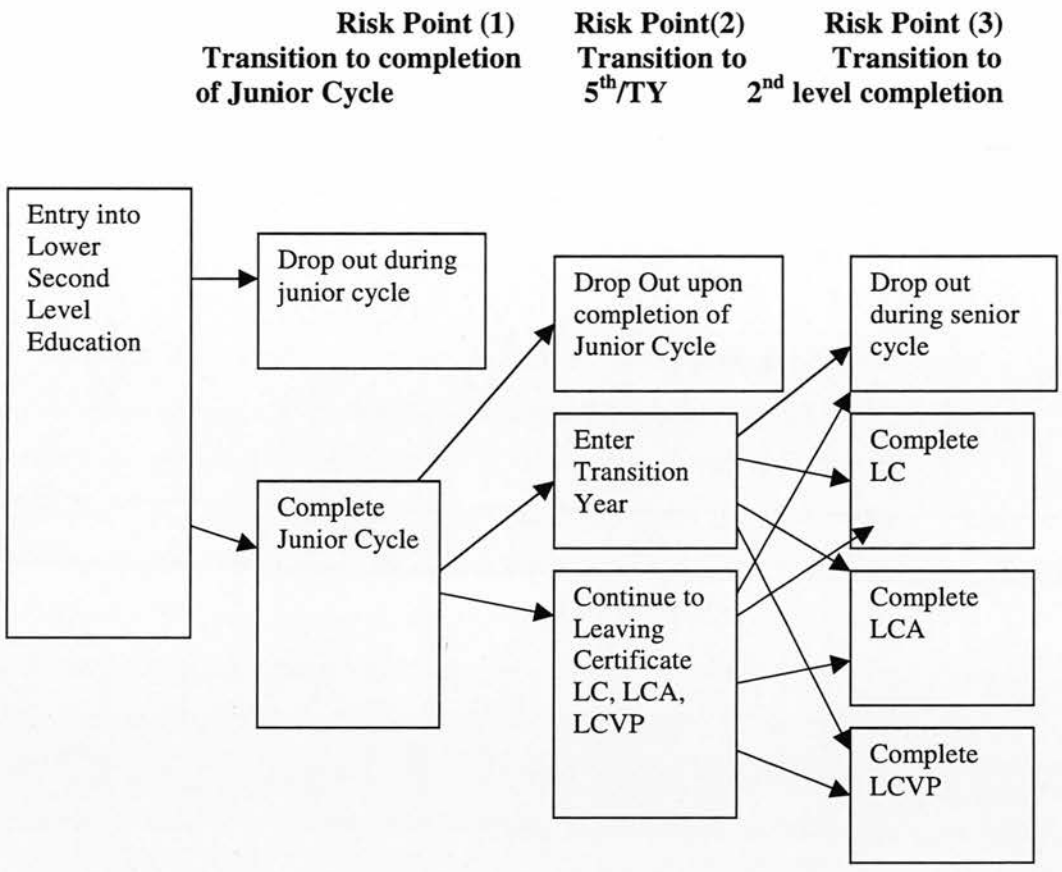
Modelling Educational Progression/Careers

Figure 7.1 shows a simple flow chart of the various pathways through the Irish educational system, which outlines various 'risk of drop out' stages that will form one of the main dependent variables. This set of educational transitions forms the basis of the empirical analyses. At the first transition from entry into second level education to completion of junior cycle, 11 per cent of school leavers left school. The second transition from junior cycle into senior cycle - 5th year or Transition Year - and a further 16 per cent of school leavers drop out at this stage. The third and final transition is to from entry into senior cycle to senior cycle completion and 12 per cent of school leavers drop out at this stage.

Three dominant models are used to analyse educational careers. These include the following;

- the Mare model – the Educational Transitions (ET) model
- the multinomial model and
- the ordinal regression model.

Figure 7.1: Flow chart showing educational pathways in the Irish second level school system: Transitions of School Leavers 2000-01



The Mare model

The educational transition (ET) or continuation ratio model (Feinberg 1977) has been used extensively to model educational inequalities ever since Mare's (1980) demonstration. The continuation ratio model estimates the odds of making the transition between successive educational levels using a logit model, with one logit per transition. The logit model of educational transitions has become standard in studies of educational stratification since the work carried out by Mare on the study of educational progressions (1980) (see for example Hannan and Whelan 1988). Using the logistic regression model, educational sociologists usually study how the relative chances of success in a given transition relate to various measures of socio-economic background and other factors. The Mare model focuses on the log odds of making the transition from level t of the educational system to level $t + 1$, conditional on having reached level t, thus presenting a separate model for each transition. These log odds are then usually taken to be linear in a set of J exogenous variables, C whose values vary over individuals and possibly over transitions. This method has been used extensively in Irish studies. See for example, the study by McCoy and Smyth (2004) who use logistic regression to examine the effect of explanatory variables on the log odds of dropping out of school as opposed to remaining on in full time education.

Breen and Jonsson (2000) in their paper *Analysing Educational Careers: A Multinomial Transition Model* argued that a limitation of the Mare model is based on the assumption that individuals progress through the educational system in a 'uni-linear sequential mode'. They argue, using Swedish data, that many school systems contain parallel branches of study that are best seen as qualitatively different pathways with different probabilities of school continuation attached to them and opt for a multinomial model of educational careers. This now brings us on to the multinomial model.

The Multinomial Model

While the Mare model places an emphasis on the log odds of making the transition to successive educational levels, it is not entirely appropriate to analyse young people in the Irish system, as demonstrated in Chapter 5, as at certain branching points,

qualitatively different choices begin to appear (see Figure 7.1). When dealing with the Irish system, applying a sequential model means assuming that the type of track entered into at time *t* has no bearing on the chance of making the transition *t + 1* which is uncommon but theoretically unrealistic. In addition, it has clearly been shown that students can often make an equal number of transitions and complete an equal number of years in school but have different labour market prospects, depending on what branch of study is entered into. The multinomial model offers a better insight into the institutional structure of the school system. In addition, in the possibility of differentiated options at branching points, transition probabilities will depend on the particular sequence of choices made up to that point, including both educational and individual choices.

The multinomial model is useful in determining effects of explanatory variables on a 'choice' or category from a discrete set of options, but is perhaps not so useful for a 'sequence' of transitions. That is, when multiple classes of the dependent variable can be ranked, then ordinal logistic regression is preferred to multinomial logistic regression (Long 1997). In the following section the ordinal regression model is considered.

The Ordinal Regression Model

In considering how to attempt to explain the influence of early work experiences on retention and progression in second level education, it makes sense to take advantage of the ordinal nature of educational attainment data of young people leaving school, particularly in terms of risk points in the transition from junior cycle to senior cycle. The use of ordinal regression to measure educational progression is now common convention by sociologists as well as economists (see for example Armstrong and McVicar 1998; Breen 2006; Gayle 1996; Halpin 2002; Iannelli 2007). While level of educational attainment could be modelled nominally (and often is) to get sensible results, it is more efficient to take account of the ordinal nature of the data, this way we can 'make better fitting, simpler models and make stronger claims' (Halpin, 2000). Furthermore, standard log-linear models do not take 'ordinality' into account, thereby they may potentially disregard useful information (Gayle 1996).

Instead of considering the probability of an individual event, ordinal regression considers the probability of that event and all events that are ordered before it, and so, we can use ordinal regression to define educational progression at school[70]. The particular ordered regression model is the cumulative logit. As an ordered model it describes the probability that an individual chooses the *jth* or a lower alternative. The goal of the cumulative odds model is to simultaneously consider the effects of a set of independent variables across these possible consecutive cumulative splits to the data[71]. Breen (2006) outlines some features of the cumulative probability model, particularly the ordered logit and ordered probit which make them particularly suitable to model educational careers[72]. While cumulative probability models presume an ordering of the educational categories, unlike the ET model, this does not have to be a temporal ordering (Breen 2006). This is the case in Ireland where a student may progress to senior cycle, but the established LC, LCA and LCVP are alternative programmes rather than sequential, and LCA is generally pursued by students who are deemed academically weaker. There are certain advantages in considering the dependent variable as ordinal rather than categorical and quite a lot of consideration has been used in classifying the stage that the young person left school as ordinal.

> '*Treating an outcome variable as ordered when in fact it is non-ordered imposes a ranking on the outcomes that they do not possess and invokes the restrictive assumption of parallel slopes. On the other hand, not treating an outcome variable as ordered, when in fact it is ordered, fails to impose a legitimate ranking on the outcomes*' (Borooah 2002:6).

Ordinal regression analyses were undertaken to examine the influence of part time job holding across junior cycle on retention and progression through second level education, using the cumulative odds model to predict the odds of being at or below

---

[70] Ordered models may be estimated by either *logit* methods or *probit* methods (Borooah 2002).

[71] It is important to keep in mind that different types of each different method for performing ordinal regression characterises the portioning of the data in a very distinct way, thus addressing very different research questions.

[72] Breen (2006) outlines that cumulative probability models presume an ordering of the educational categories but unlike the ET model this need not be a temporal ordering: it could be an ordering in terms of the difficulty of the attainment or an ordering in terms of the underlying latent variable. Provided this is so, the model is applicable even when educational categories are not sequential.

a particular category[73]. By using a cumulative odds/proportional odds model, the model can be used to predict the odds of being at or below a particular category and the test of parallel lines will help to estimate if there is a variable that affects the likelihood of a person being in the ordered categories, then it is assumed that the coefficients linking the variable value to the different outcomes will be the same across all the outcomes. If this assumption is invalid, the slope coefficients associated with a particular variable are different across different outcomes. For the purpose of this analysis, retention and progression is viewed as an ordinal variable. Three decisions are required when building an ordinal regression model: location or predictor variables, scaling, and link functions. The location component includes two independent variables social class, gender and part time job holding. Scaling is not warranted in this model because the location-only model provides a good summary of the data. Five link functions are available in the ordinal regression procedure. Choosing the link function is guided by the frequency distribution of responses for the dependent variable. A frequency table indicated that higher categories (having completed the Leaving Certificate) is more probable, so the complementary log-log function could be used. Because the analysis assumes that higher categories are more probable, the complementary log-log link option defines the transformation to make the model additive.

A note on observational data

Rosenbaum and Rubin (1983) proposed propensity score matching as a method to reduce the bias in the estimation of treatment effects with observational datasets. Since in observational studies assignment of subjects to the treatment and control groups is not random, the estimation of the effect of treatment may be biased by the existence of confounding factors. Propensity score matching is a way to "correct" the estimation of treatment effects controlling for the existence of these confounding factors based on the idea that the bias is reduced when the comparison of outcomes is performed using treated and control subjects who are as similar as possible. Since

[73] The motivation for the proportional odds model is provided by an appeal to the existence of an underlying continuous and perhaps unobservable random variable (Gayle 1996). As an extension of logistic regression, the predictions are logits for the cumulative probabilities, which are referred to as cumulative logits.

matching subjects on an n-dimensional vector of characteristics is typically unfeasible for large n, this method proposes to summarize pre-treatment characteristics of each subject into a single-index variable (the propensity score) that makes the matching feasible. It should however be kept in mind that they only allow to reduce, and not to eliminate, the bias generated by unobservable confounding factors. The extent to which this bias is reduced depends crucially on the richness and quality of the control variables on which the propensity score is computed and the matching performed. To be more precise, the bias is eliminated only if the exposure to treatment can be considered to be purely random among individuals who have the same value of the propensity score.

In the absence of experimental data, the essential problem is one of sample selection; individuals who receive the treatment (have a part time job) may be substantially different to those not receiving the treatment and thus standard regression estimation methods may produce biased estimates of the effect of the treatment on the outcome of interest. By matching treatment and control observations that are similar in terms of observed characteristics, the propensity score matching method produces unbiased estimates of the effect of the treatment (in our case, part time job holding) on the outcome of interest (educational outcome in question). However, standard propensity score approaches cannot deal with the possibility that there may also be certain unobserved differences in characteristics between treatment and control observations (e.g., motivation, ability.). However, it assumes that matching on the observables takes care of matching on the unobservable variables.

7.4 Data, Variables and Analytic Strategy

Data

The influence of early work experience(s) on educational outcomes are examined using the 'adjusted' SLS03 dataset as discussed in the previous chapter. The data is well suited for this research question because it offers information on participation in different programmes at upper senior cycle thus allowing an examination of track allocation. In addition, the structure of the data lends itself well to the influences of

early school leaving, as the stage at which the school leavers left school can be clearly defined in terms of junior cycle or senior cycle. However, because school leavers are not asked to state the actual academic year in which they left school, particularly in senior cycle, it makes it more difficult to estimate the effect of early work experience among drop out in senior cycle. Because the SLS does not collect data on previous academic attainment in the Junior Certificate examination, previous academic achievement is not included in the models.

Measurement of Dependent Variables

Four dependent variables relating to educational achievement are used in the analyses. The dependent variables – (1) retention, (2) track allocation at upper senior cycle, (3) examination performance in the Leaving Certificate, and (4) participation in further or higher education upon leaving school – are based on self-report information, derived directly from school leavers themselves or, in their absence, from a relative. Each of the dependent variables have been defined in a number of different ways and so the models used have been matched to the level of measurement. For example, when considering the influence of early work experiences on retention, a binary logistic regression model is used because the dependent variable has two outcomes – the young person either dropped out or they did not. The SLS03 is particularly useful for answering this question as it asks school leavers about the stage at which they left school, allowing an examination of the stages that school leavers' drop-out, which was expressed in the form of an ordinal variable.

Measurement of dependent variables for analyses pertaining to retention and progression through the second level education system

The first set of analyses considers the role of part time job holding during junior cycle on retention and progression through the second level education system. Progression can be identified by school leavers' responses to the question '*At what stage of education did you leave*?' From this question the stage at which a school leaver left the education system can be identified, and so, 'risk points' in the transition through second level education can be derived. Three dependent variables

are used in this set of analyses. The first dependent variable measures the stage at which school leavers left school, thus estimating progression through second level education, and consists of a discrete four-category variable:

(1) Dropped out before completing the Junior Certificate

(2) Dropped out upon completion of the Junior Certificate

(3) Dropped out during second level education

(4) Completed Leaving Certificate

For this set of analyses ordinal regression methods are used. The third dependent variable was binary (left school without completing the Junior Certificate=1, left school upon completion of the Junior Certificate) and a logistic regression was undertaken to examine the factors, which differentiate junior cycle leavers who do and do not complete the junior certificate examination.

Measurement of dependent variables for analyses pertaining to educational performance in the Leaving Certificate

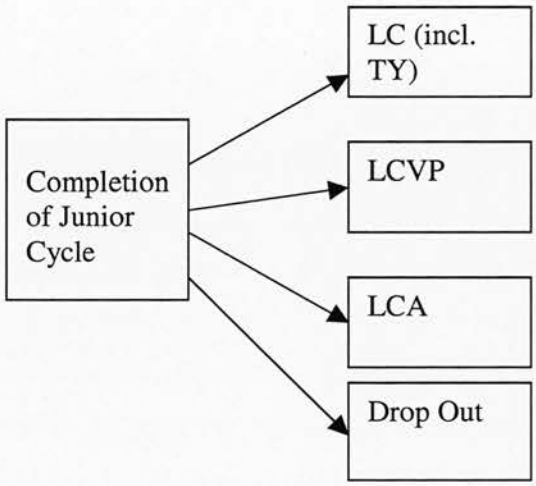
Examination performance in the Leaving Certificate is investigated in terms of a Grade Point Average which was derived from the question 'At this (last certificate examination you sat) examination, what subjects did you sit for, what paper did you take and what grades did you get (this does not include PLCs)'. From this question, a grade point average was computed as a form of total points score for those who completed and sat the established Leaving Certificate and the Leaving Certificate Vocational examination. This method has been replicated from the McCoy and Smyth analysis of part time work. The grade point average was computed by allocating a score to each of the grades received based on the level for each subject. The score was then averaged out by dividing the number of subjects attempted in the examination. This method resulted in a grade point average for 918 school leavers, accounting for 75 per cent of the sample of LC and LCVP leavers who sat the examination. The overall grade point ranged from 0.9 to 42, with a mean of 14.37 and a standard deviation of 5.35. The grade point average was then standardised to have a mean of 0 and a standard deviation of 1.The maximum score is 42 which is achieved by a student who is awarded seven A grades on higher level papers, while

the lowest possible score is 0 where a student fails to achieve at least a grade F on any of his/her best seven papers.

I tried to estimate an OPS or 'overall performance scale' for measuring Junior Certificate performance, replicating the method used by Kellaghan and Dawn (1995) analysis of attendance data at primary and post-primary levels for 2003/04. The OPS score is based on a students' performance in the seven subjects in which he or she performed best. However, because of the large proportion of missing cases relating to Junior Certificate performance among those who dropped out having completed the Junior Certificate, it was deemed inappropriate to use the measurement.

When considering track allocation, a discrete dependent variable is considered using a multinomial regression model (see Figure 7.2).

Figure 7.2: Model of Curricular Track allocation



Participation in education upon leaving second level education can be derived from four questions in the questionnaire pertaining to post school outcomes which include participation in vocational preparation, state sponsored training, and further/higher education or training (see Questionnaire in Appendix B).

Individual and Family Background Variables

As in the previous chapter, independent variables include gender, and a range of socio-economic background variables including parental social class background (dominance approach) and parental education. Other socio-economic background factors are also considered such as parental employment, family structure and measure of socio-economic deprivation in the area in which the school leaver lives. These dimensions of advantage or disadvantage should be considered as they are thought to be determinants of an individuals' educational attainment. Parental education and parental social class are regarded to be important controls in this set of analyses because social class inequalities in educational outcomes are evident in a large number of studies. In addition to the these variables, previous work experiences undertaken in the form of part time jobs or school organised work experience are considered in relation to participation in different types of early work experiences. While modelling specific labour market attributes is beyond the scope of this dissertation, a measure of the socio-economic status of the region in which young people live is included.

School level variables

School level variables are also taken into account and these include school type attended, gender mix of the school, mean SES of the school intake, and whether a differentiated curriculum is offered at senior cycle.

Controls not included in the models

As outlined earlier, the SLS03 does not have available a prior achievement control, or measure of educational expectations or occupational aspirations. Although the combined data set provides a rich set of individual, socio-economic background and regional characteristics, my empirical work does not include a number of intervening measures such as the impact of peer groups and other latent variables known to have an influence on uptake of early work experiences and the outcomes, particularly examination performance.

Modelling strategy used

Each of the sections begin by offering a descriptive analysis of the distribution of early work experience according to a range of individual and school level characteristics. The influence of these factors is examined through multivariate analyses and the modelling strategies used were multilevel binary logistic regression, multilevel multinomial regression model and multilevel ordinal regression.

Unless otherwise stated, the binary regression models were developed by considering the potential predictor variables using bivariate methods of analysis. This was achieved with a contingency table of outcome (y=0,1) versus the k levels of the independent variable, and only those that were significantly associated with the probability of having a job at the value $p<.25$ were included in the fitting model process (see Hosmer & Lemeshow 2000). Variables were also selected on the basis of their relevance in the literature, as well as through intuition with regard to the Irish context. Upon completion of the bi-variate analyses, variables were selected for the multivariate analyses in order to examine the importance of each of these types of independent variables in predicting the probability of the outcome variable.

7.5. Findings

The literature has indicated that achievement in school is related to part time job holding. This section examines the influence of early work experiences on retention and progression through second level education through three sets of analyses. Firstly, it begins by asking whether part time job holding during junior cycle has an influence on progression through second level education. That is, it empirically examines the role of part time job holding during junior cycle on retention and progression through second level education and uses the full sample of school leavers (n=2304). Confirmatory analyses are then discussed and presented in the Appendix. The second set of findings considers the role of part time job holding among senior cycle leavers on entry into one of the tracks at second level. The third and final set of findings then consider the role of early work experiences on examination performance in the Leaving Certificate examination.

7.5.1. Early work experiences and retention and progression in second level education

This section now considers the role of early work experiences in retention and educational progression at second level education. It begins by considering the influence of part time job holding in junior cycle, paying particular attention to part time job holding in 1st year on educational progression through second level education. Confirmatory analyses are then presented. It then considers the role of early work experience on drop out within curricular tracks and finally it then considers the role of all different types of early work experiences on drop out among all senior cycle leavers

A Descriptive Analysis of Progression in relation to part time job holding

Table 7.1 presents the distribution of school leavers according to their stage of leaving school, according to a range of individual, socio-economic, school and local area characteristics and Table 7.2 also presents the distribution of school leavers according to the stage of leaving school, distinguishing among those who completed the established Leaving Certificate, the Leaving Certificate Vocational and the Leaving Certificate Applied. Both tables also indicate the percentage of school leavers who ever had a part time job, and the percentage of school leavers who had a part time job in each of the years of junior cycle. Figure 7.1 illustrates progression through second level education for the whole sample of school leavers in terms of cumulative frequencies[74]. That is, it considers educational progression through the second level education system in relation to ever having a part time job in 1st year using a cumulative percentage plot, with separate lines for those who had a part time job and those who did not.

[74] A note on cumulative frequencies – when treating educational progression as an ordinal variable, the idea is that the number of cases for one value is added to the number of cases for the next value and so on until they reach 100%. In the case of educational progression, 10.9% of school leavers dropped out before completing the junior cycle, 16.2% dropped out upon completion of the junior cycle, 11.8% dropped out during the Leaving Certificate. In terms of the cumulative distribution 10.9% of school leavers dropped out before completing the junior cycle, 27.1% dropped out either before completing the junior cycle or upon completion of the junior certificate and 38.9% dropped out either before completing the junior cycle or upon completion of the junior certificate or during the Leaving certificate, which means that 100% of school leavers dropped out either before completing the junior cycle or upon completion of the junior certificate or during the Leaving certificate or upon completion of the Leaving Certificate.

Table 7.1: Stage of leaving school according to a range of individual characteristics (all senior cycle leavers)

	Before Completed JC	*Upon Completion JC*	*During Senior Cycle*	*Completed Senior Cycle*
Gender				
Male	11.6	22.5	13.6	52.3
Female	10.1	8.7	9.5	71.7
Parental Social Class Background				
Higher and Lower Professional	3.3	11.3	9.1	76.3
Non Manual	9.9	18.9	13.7	57.5
Skilled Manual	12.3	20.4	14.3	53.1
Semi-Unskilled Manual	20.7	14.6	14.6	50.2
Unclassified	23.4	16.9	6.1	53.7
Family Structure				
Single Parent Household	18.2	15.7	12.6	53.5
Two parents present	10.3	16.2	11.7	61.8
Household Employment				
Full household employment	5.7	15.2	11.3	67.9
Exposed to unemployment	15.4	17.1	12.2	55.4
Parental Education				
Primary or Less	23.2	20.9	14.0	41.9
Junior Certificate	10.2	21.3	14.2	54.3
Leaving Certificate	4.8	11.8	11.0	72.4
Diploma or Higher	1.7	6.0	6.5	85.8
Unknown	18.9	23.1	11.8	46.2
School Type Attended				
Secondary	6.8	10.3	9.6	73.3
Community/Comprehensive	12.4	18.7	14.0	54.8
Vocational	14.1	20.4	12.9	52.6
Gendermix of school				
Single Sex	9.30	11.8	10.7	68.0
Mixed	11.4	17.6	12.0	58.8
Curricular mix at senior cycle				
Yes	11.2	15.2	11.2	64.0
No	9.3	16.5	11.9	60.3
Local socio-economic disadvantage				
High	14.1	16.0	13.8	56.1
Medium	10.7	15.0	14.0	60.3
Low	9.2	17.5	8.6	64.7
Part time job status junior cycle				
Part time job in second level	4.4	11.6	13.2	70.8
Part time job in junior cycle	9.1	23.8	18.1	49.1
Part time job in 1st year	21.2	23.2	18.5	37.1
Part time job in 2nd year	12.3	24.6	17.2	46.0
Academic Year Began Work				
1st year	21.2	23.2	18.5	37.1
2nd year	9.0	25.2	15.5	50.3
3rd year	2.5	23.3	19.3	54.9
TY	N/A	N/A	14.9	85.1
5th year	N/A	N/A	5.0	95.0
6th year	N/A	N/A	6.9	93.1
No PTJ	18.0	21.3	10.1	50.5

Table 7.2: the distribution of school leavers according to the stage of leaving school distinguishing among those who completed the established Leaving Certificate, the Leaving Certificate Vocational and the Leaving Certificate Applied.

	Before Completed JC	*Upon Completion JC*	*During Senior Cycle*	*Completed Established LC*	*Completed LCVP*	*Completed LCA*
Gender						
Male	11.6	22.5	13.6	37.6	6.9	7.7
Female	10.1	8.7	9.5	50.0	13.6	8.1
Parental Social Class Background						
Higher and Lower Professional	3.3	11.3	9.1	60.9	10.3	5.1
Non Manual	9.9	18.9	13.7	39.0	8.8	9.6
Skilled Manual	12.3	20.4	14.3	32.2	12.7	8.1
Semi-Unskilled Manual	20.7	14.6	14.6	29.9	9.6	10.7
Unclassified	23.4	16.9	6.1	38.5	7.4	7.8
Family Structure						
Single Parent Household	18.2	15.7	12.6	39.4	4.5	9.7
Two parents present	10.3	16.2	11.7	43.6	10.5	7.7
Household Employment						
Full household employment	5.7	15.2	11.3	48.2	11.3	8.3
Exposed to unemployment	15.4	17.1	12.2	39.0	8.9	7.5
Parental Education						
Primary or Less	23.2	20.9	14.0	24.1	7.3	10.5
Junior Certificate	10.2	21.3	14.2	37.0	9.0	8.3
Leaving Certificate	4.8	11.8	11.0	53.6	11.8	7.0
Diploma or Higher	1.7	6.0	6.5	68.5	12.0	5.3
Unknown	18.9	23.1	11.8	27.8	10.7	7.7
School Type Attended						
Secondary	6.8	10.3	9.6	54.9	11.4	6.9
Community/Comprehensive	12.4	18.7	14.0	37.2	8.5	9.1
Vocational	14.1	20.4	12.9	35.1	9.2	8.3
Gendermix of school						
Single Sex	9.3	11.8	10.7	52.0	8.3	7..1
Mixed	11.4	17.6	12.0	40.3	10.3	8.1
Curricular mix at senior cycle						
Yes	9.3	15.2	11.2	64.0	0.0	0.0
No	11.2	16.5	11.9	36.8	13.0	10.3
Local socio-economic disadvantage						
High	14.1	16.0	13.8	39.2	7.9	9.0
Medium	10.7	15.0	14.0	40.2	11.9	8.1
Low	9.2	17.5	8.6	47.8	9.9	7.0
Part time job status junior cycle						
Part time job in second level	4.4	11.6	13.2	46.7	13.8	10.3
Part time job in junior cycle	9.1	23.8	18.1	29.9	11.7	7.4
Part time job in 1st year	21.2	23.2	18.5	20.5	9.3	7.3
Part time job in 2nd year	12.3	24.6	17.2	27.0	12.3	6.7
Academic Year Began Work						
1st year	21.2	23.2	18.5	20.5	9.3	7.3
2nd year	9.0	25.2	15.5	29.7	14.8	5.8
3rd year	2.5	23.3	19.3	35.3	11.3	8.4
TY	N/A	N/A	14.9	62.6	14.4	8.1
5th year	N/A	N/A	5.0	61.7	17.4	15.9
6th year	N/A	N/A	6.9	67.2	12.1	13.8
No PTJ	18.0	21.3	10.1	39.4	5.8	5.3

Figure 7.3 illustrates that students who ever had a part time job in 1st year are more at risk of *not* progressing through second level education than those who did not have a part time job in 1st year. This is also illustrated by Figure 7.4 where we see that those who had a part time job in 2nd year were also more at risk of *not* progression through second level education than those who did not have a job in that year.

Figure 7.3 and Figure 7.4 illustrating the bivariate relationship between part time job holding in 1st year on educational progression and on part time job holding in 2nd year on educational progression respectively.

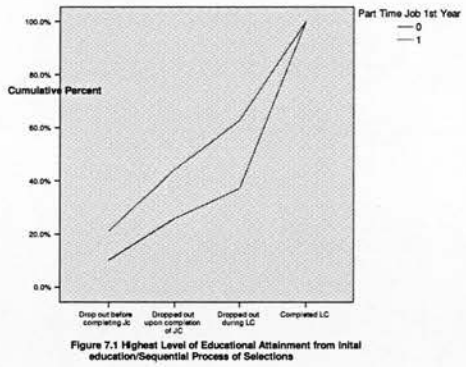
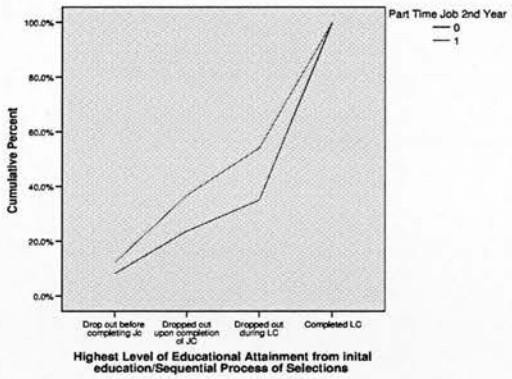


Figure 7.1 Highest Level of Educational Attainment from Inital education/Sequential Process of Selections



Highest Level of Educational Attainment from Inital education/Sequential Process of Selections

Figure 7.5 and Figure 7.6 illustrating the bivariate relationship between part time job holding in 3rd year on educational progression and on part time job holding in the years of junior cycle on educational progression respectively.

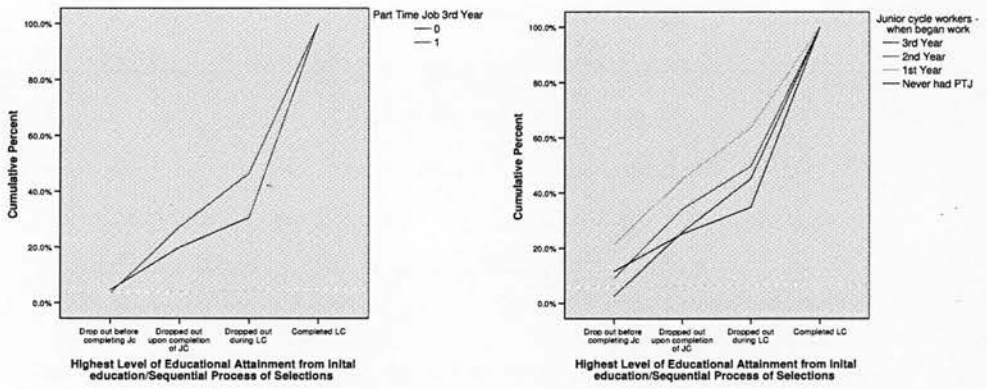


Figure 7.5 also illustrates that school leavers who had a part time job in 3rd year are also more at risk of *not* progressing through second level education compared to those who did not have a part time job.

Multivariate Analyses of progression through second level education

These findings are now considered in a series of ordinal regression models using each of the conceptualisations of part time job holding as an independent variable and progression through second level education as a dependent variable. Table 7.3 below presents the results of each of the separate binary tests of parallel lines for each conceptualisation of part time job status as illustrated in the Figures above. A summary of the test of parallel lines for each model is shown in the Table 7.3 below.

The test of parallel lines for each of the bivariate ordinal regression analyses revealed that the relationship between part time job holding in junior cycle and part time job holding in 3rd year and the logits were not the same for all logits, meaning that the effect of having a part time job at these stages of second level are statistically different across the splits in the data. However, the tests also revealed a relationship between part time job holding in first year[75] and part time job holding in second

[75] The residual deviance or likelihood ratio x^2 statistic is $G^2 = 3.968$ on two degrees of freedom indicating a good fit.

year[76], that is, the logit is the same for all logits, meaning that the effect of having a part time job in these years is not statistically different across the splits in the data, thus indicating that the influence of part time job holding in these years is similar across all school leavers, irrespective of when they left school. Statistically, this implies that if separate binary logistic regression models were fit according to the same pattern, the slopes and odds ratios for the independent variables of interest would be similar. That is, the bivariate model assumes that the ratio of the odds for lower to higher progression for those who had part time jobs and those who did not have a part time job is 2.5, and for those who had part time jobs and those who did not have a part time job is 2.5, which remains the same over all retention levels.

Table 7.3: Summary of Results of Single Variable Ordinal Regression Models

PTJ in junior cycle	The relationship between the independent variables and logits are not the same for all logits.
PTJ in 1st Year	**The relationship between the independent variables and logits is the same for all logits.**
PTJ in 2nd Year	**The relationship between the independent variables and logits is the same for all logits.**
PTJ in 1st and 2nd year	**The relationship between the independent variables and logits is the same for all logits.**
PTJ in 3rd Year	The relationship between the independent variables and logits are not the same for all logits.
When began working in Junior cycle	The relationship between the independent variables and logits are not the same for all logits.

The following section considers whether this relationship holds when other factors known to have an influence on retention and progression through second year are also taken into account. The aim is to consider how individual and school level characteristics influence educational progression, paying particular attention to part time job holding in 1st year. In order to answer this question fully, we must first consider who it is that has a part time job in 1st year.

[76] The residual deviance or likelihood ratio x^2 statistic is $G^2 = 3.354$ on two degrees of freedom suggesting a good fit.

Part time job holding in 1st year and progression through second level education

Findings from Table 7.3 indicated that the bivariate model assumed that the ratio of the odds for lower to higher progression for those who did and did not have a part time job in 1st year stays the same over all retention levels, a finding which merits more attention. In order to further consider the influence of part time job holding in 1st year, the determinants of having a part time job in 1st year among all students is considered using a multilevel binary regression model, followed by a multilevel ordinal regression model of progression through second level education including part time job holding in 1st year as an independent variable.

To guage the magnitude of variation between schools in part time job holding in 1st year, Model 1 of Table 7.4 presents an unconditional model. As expected from findings presented in Chapter 6, we see from the unconditional model that there are no school effects in relation to part time job holding in 1st year. That is, the proportion of school leavers who had a part time job in 1st year does not vary across schools.

Model 2 and Model 3 consider the influence of individual and school level effects respectively on having a part time job in 1st year. Model 2 indicates that when taking into account of individual level variables, females are less likely to have a part time job in 1st year than males. School leavers whose parents have higher levels of education are less likely to have a part time job in 1st year than those with lower levels of education. While the probability of having a part time job in 1st year does not vary statistically significantly across schools it seems that it does not vary substantially across labour markets as local area socio-economic deprivation does not reach statistical significance.

Table 7.4: Multilevel Binary regressions of factors influencing employment status in 1st year

	Model 1	Model 2	Model 2
	Exp(b) (b/SE)	Exp(b) (b/SE)	Exp(b) (b/SE)
Constant	-1.510 (.041)	-1.154 (.186)	-1.033 (.376)
Student level equation			
Female		-.228 (.086)*	.060 (.086)
Lower Professional		.180 (.162)	.162 (.165)
Non Manual		-.149 (.166)	-.210 (.172)
Skilled Manual		.140 (.168)	.084 (.173)
Semi Skilled Manual		-.046 (.191)	-.115 (.196)
Unclassified		-.611 (.243)*	-.623 (.242)*
Junior Certificate		-.235 (.115)*	-.220 (.116)
Leaving Certificate		-.221 (.118)^	-.165 (.120)
Diploma or Higher		-.532 (.157)*	-.441 (.159)*
Unclassified		-.014 (.167)	.018 (.167)
Exposed to Unemployment		-.094 (.085)	-.017 (.086)
Single Parent Family		-.074 (.152)	.071 (.141)
High socio-economic deprivation		.108 (.098)	.114 (.103)
Moderate socio-economic deprivation		-.093 (.107)	-.044 (.109)
School level equation			
Community Comprehensive			.263 (.128)*
Vocational			.148 (.107)
School socio-mix			-.143 (.086)
Curricular mix at senior cycle			.029 (.108)
Level 2 Variance Random Effect	**.036 (.105)**	**0.210 (.103)**	**.033 (.103)**

Reference categories: male, higher professional background, parents with primary or lower level of education, living in household with full parental employment, both parents present, living in area of low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle.
** Indicates coeff/se >2.*

Model 3 of Table 7.4 then adds school level variables. We now see that there is no longer an effect of gender; females are no longer more likely to have a part time job than males. In relation to school level variables, we now see that those attending community or comprehensive schools are more likely to have a part time job than those attending secondary schools. The next steps are now to consider educational progression through second level education while including part time job holding in 1st year in the regression equation.

Table 7.5 presents the results of a multilevel ordered category response model (ordinal regression). Referring to the thresholds being used, we would interpret threshold level 3 as the logit of the expected probability that pupil j had left school during senior cycle or earlier. Since we have treated the highest level of attainment at second level education (completion of the Leaving Certificate[77]) as the reference category, a positive coefficient among the independent variables indicates that the probability of being in the other lower categories increases while a negative coefficient indicates that the probability of being in the other lower categories decreases. Model 1 of Table 7.5 presents the unconditional model which indicates that educational progression for students in our sample varies substantially across schools. Model 2 of Table 7.4 considers the influence of individual level variables. We now see that females have a lower probability of being in the lower categories than males, those from class backgrounds other than higher professional have a higher probability of being in the lower categories, school leavers whose parents have higher levels of education have a lower probability of being in the lower categories, those living in households with unemployment and those from single parent families have a higher probability of being in the lower categories. Interestingly, those living in areas of high deprivation do not have a higher probability of being in lower categories. We see that with the introduction of individual level variables that educational progression for students in our sample continues to vary substantially across schools although the school level variance has reduced slightly.

[77] For the purpose of this analysis, completion of Leaving Certificate includes those who have completed the Leaving Certificate Applied, the Leaving Certificate Vocational Programme and the established Leaving Certificate.

Table 7.5: Results of Multilevel ordinal regression model of progression through second level education

	Model 1 Unconditional Model	Model 2 Individual variables	Model 3 Individual and school level	Model 4 PTJ 1st year
Cutpoints & Thresholds				
Threshold 1 (Before completing JC)	-2.754 (.117)	-2.753 (.267)	-1.883 (.597)	-.2011 (.600)
Threshold 2 (Completed JC)	-1.434 (.103)	-1.326 (.262)	-.0450 (.595)	-.563 (.598)
Threshold 3 (During senior cycle)	-0.741 (.100)	-0.562 (.261)	.318 (.595)	.211 (.597)
Independent Variables				
Female		-.916 (.107)*	-.868 (.107)*	-.822 (.108)*
Lower Professional		.620 (.228)*	.549 (.230)*	.509 (.230)*
Non Manual		.736 (.219)*	.621 (.222)*	.633 (.221)*
Skilled Manual		.834 (.227)*	.720 (.229)*	.693 (.229)*
Semi Skilled Manual		1.038 (.242)*	.926 (.245)*	.925 (.245)*
Unclassified		1.055 (.252)*	.999 (.252)*	1.040 (.253)*
Junior Certificate		-.521 (.126)*	-.511 (.126)*	-.482 (.126)*
Leaving Certificate		-1.128 (.142)*	-1.061 (.142)*	-1.039 (.143)*
Diploma or Higher		-1.729 (.198)*	-1.653 (.198)*	-1.615 (.199)*
Unclassified		-.197 (.182)*	-.199 (.182)	-.200 (.183)
Exposed to Unemployment		.312 (.105)*	.325 (.105)*	.356 (.106)*
Single Parent Family		.344 (.162)*	.337 (.162)*	.337 (.163)*
High Deprivation		.230 (.177)	.299 (.178)	.285 (.178)
Moderate Deprivation		-.012 (.167)	.061 (.165)	.056 (.166)
Community/Comprehensive			1.283 (.290)*	1.282 (.291)*
Vocational School			1.144 (.238)*	1.147 (.240)*
Mixed School			-.616 (.237)*	-.647 (.238)*
Socio-mix of the school			-.326 (.143)*	-.318 (.143)*
Curricular mix at senior cycle			-.076 (.199)	-.082 (.200)
Part time job in 1st year				.844 (.173)*
Level 2 variance random effect	**1.424**	**1.027**	**0.881**	**.891**
* Indicates coeff/se >2.	**(.199)**	**(.159)**	**(.145)**	**(.146)**
T value	7.1*	6.4*	6.0*	6.1*

Reference categories: male, higher professional background, parents with primary or lower level of education, living in household with full parental employment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no part time job in 1st year.

Model 3 then considers school level variables and we see that school leavers attending community comprehensive or vocational schools have a higher probability of being in one of the lower categories than those attending secondary schools. Furthermore those attending mixed schools are less likely being in one of the lower categories than those attending single sex schools as are those attending schools with a higher socio-economic mix.

Finally, Model 4 of Table 7.5 considers the influence of part time job holding in 1st year and we now see that all else being equal, those who had a part time job in 1st year have a higher probability of being in one of the lower categories than those who did not have a part time job in 1st year. We then conclude that part time job holding in 1st year is negatively associated with educational progression. However, the association between part time job holding and educational progression may not necessarily be causal and it might be at least spurious owing to pre-existing differences in attitudes and orientations towards work and school and to differences in educational and career plans and expectations.

The basic strategy behind this type of regression analysis is to find a set of controls that can be included in the regression equation in order to remove the correlation between the treatment variable and the error term. It should be noted that this method may still lead to biased estimates. On this note, Morgan and Winship (2007) document that before interest on selection bias came to the fore, the standard regression strategy that prevailed was to include additional variables in the regression equation, hoping to break the correlation between the treatment indicator and the error term. On this note, they cite the work of Barnow, Cain and Goldberger (1980:52) who noted that 'the most common approach' is to simply assume away the selection bias after a diligent attempt to include a large number of variables in the regression equation. However, this strategy is generally ineffective because some individuals are thought to enter the treatment based on anticipation of the treatment effect itself – that is, the factors that influence selection into the programme may also influence the outcome and secondly data sources often have measures of unobserved variables which will affect both the treatment and the outcome. For example, consider a case in which part time job holding in 1st year is correlated with the error in the population because part time job holding is correlated with other causes of educational progression that are implicitly embedded in the error term. That is, Table 7.3 empirically demonstrated that students are not randomly assigned to part time job holding in 1st year[78]. Furthermore, it may be that those who had a part time job in 1st

[78] If part time job holding was randomly assigned, the treatment variable would be uncorrelated with the error term even though there may be a chance that correlation between D and e in any finite set of study subjects.

year would be more likely *not to progress* through second level even in the absence of part time job holding. If this is true, part time job holding in 1st year and the population level error term *e* are correlated because those who have a 1 on the treatment variable are more likely to have high values rather than low values for *e*.

It has been outlined that the association between employment and educational progression may not necessarily be causal, and that it might be at least partially spurious owing to pre-existing differences in attitudes and orientations towards work and school and to differences in educational and career plans and expectations. Further analyses were conducted to consider whether the association between employment in 1st year and educational progression is causal making use of propensity score matching methods developed by Rosenbaum and Rubin (1983, 1984). This method matches treatment and control observations that are similar in terms of observed characteristics, and thereby produces unbiased estimates of the effect of the treatment (part time job holding) on the outcome of interest (educational progression) using the psmatch2 procedure in STATA. That is, this method involves calculating the probability that a school leaver works in 1st year and then compares the educational progression of students with equivalent propensities but different employment behaviours. The results (not shown here) indicate that once matching techniques are used, there is very little bias evident.

Similar findings conducted in relation to part time job holding in 2nd year were replicated (not shown here). Furthermore, other analyses (not shown here) considered different combinations of part time job holding during 1st and 2nd year, and what was particularly evident is that any combination of part time job holding in these years of junior cycle contributes to a lower probability of progressing through the second level education system than having a part time job in both of these years. That is, 'regular workers' – those who had a PTJ in both 1st and 2nd year - were more likely to progress than those who did not have a part time job(s) in both years. That is, the findings indicated that school leavers who did not have a part time job in either 1st or 2nd year, those who had a part time job in first year only or in second year only are less likely to progress through second level education than those who

held a part time job(s) in both of those years. However, when other individual and school level variables were added to the model, these results did not hold.

Confirmatory Analyses of Ordinal Regression Model

In order to confirm the analyses of the multinomial ordinal regression model, a number of further analyses were carried out using multilevel multinomial regression and a series of multilevel binary logistic regression models to confirm the findings from Table 7.4 and 7.5. A series of binary logistic regressions were used and these are shown in Tables A10 – A12 in the Appendix. Table A10 models the probability of leaving school before completing the junior certificate versus completing any other stage of second level education. Table A11 models the probability of leaving school at any stage during junior cycle versus any other stage of second level education. Table A12 models the probability of dropping out of school at any stage of junior or senior cycle versus completing the senior cycle. Each of the models confirm that school leavers who had a part time job in 1st year are more likely to drop out of school.

Because the assumption of parallelism was rejected when other important variables such as gender or social class were further added to the models, the alternative method of multinomial regression, which estimates separate coefficients for each category of the dependent variable, was carried out as recommended by Borooah (2002). Unlike ordinal regression, to assess the effects of part time job holding on school continuation decisions using a multinomial model is to predict a set of dichotomous dependent variables[79].

[79] An ordinal regression model is preferable to a multinomial model because ignoring the categories of the dependent variable and treating it as nominal and using a multinomial technique results in a risk of the loss of efficiency. Furthermore, by ignoring the fact that categories are ordered means that we fail to use some of the information available and estimate more parameters than are necessary, which increases the risk of obtaining insignificant results (Breen 2006). However, the multinomial model used here is used in a context of confirming the findings from the ordinal regression.

Does part time job holding during junior cycle have an influence the achievement of a Junior Certificate Qualification?

Among those who leave school in junior cycle, what is it that differentiates young people who drop out of school before completing the junior cycle from those who complete the Junior Certificate? By restricting the sample to junior cycle leavers only we can compare like with like and greater use can be made of measures of part time job holding, including, part time job status in junior cycle, part time job status in first year, the academic year the school leaver first had a part time job, the most recent academic year the school leaver had a part time job, the number of years part time jobs were held, part time job status the academic year left school, number of hours worked in the most recent part time job measured both as non-linear and linear and an interaction term between hours worked and combination of part time jobs held. In all 11 per cent of the sample of school leavers left school before completing the junior certificate.

Descriptive results (not shown here) indicate that these early school leavers are more likely to be male, without experience of a part time job in junior cycle, from lower socio-economic backgrounds, attending vocational schools and located in the Dublin region.

Using a multilevel binary logistic regression with a binary dependent variable (left school without completing the junior certificate = 1, left school with junior certificate = 0) and independent variables; gender, age, parental employment, number of parents present, parental social class, parental education, school type attended, regional authority lived in, regional authority deprivation score (linear and non-linear), local authority area deprivation score (linear and non-linear), and city status. In addition an array of measurements of part time job holding have also been examined, including the following measurements: part time job status in junior cycle, part time job status in first year, the academic year the school leaver first had a part time job, the most recent academic year the school leaver had a part time job, the combination of years part time jobs were held, part time job status the academic year left school, number of hours worked in the most recent part time job measured both as non-linear and linear, and an interaction term between hours worked and combination of part time jobs held.

Model 1 in Table 7.6 presents the unconditional model to guage the magnitude of variation between schools in drop out among junior cycle leavers by estimating a model with no predictors at either level. The results indicate that there is significant variation across schools in the proportion of junior cycle leavers who gain a Junior Certificate before leaving school. We hypothesise that drop out will be higher among males, those from lower social class backgrounds and those with parents who have lower levels of education. Furthermore, we hypothesise a 'contextual' effect at level 2 such that a lower school-mean SES will predict higher drop out.

While previous models in this chapter have indicated that males are more likely to drop out of school, Model 2 of Table 7.6 suggests that among junior cycle leavers, being male is associated with a lower probability of dropping out without obtaining a Junior Certificate relative to being female. As expected, non-completion of the Junior Certificate examination is associated with those from more disadvantaged backgrounds: those from professional or non-manual backgrounds are less likely to drop out of school without completing the junior certificate than those from skilled and unskilled manual backgrounds. However, contrary to what we would expect, non completion of the Junior Certificate examination is associated with those from households with higher levels of parental education: those from households with parental levels of education at primary or lower are less likely to drop out of school without completing the junior certificate than those whose parents have higher levels of education. On the other hand, in line with expectations, school leavers living in households with full parental employment are less likely to dropout without completing the examination than young people exposed to unemployment in the home. School leavers living in a single parent household are more likely to drop out than those from families where both parents are present. The socio-economic deprivation status of the region in which the school leaver lives did not have a significant influence on drop out among junior cycle leavers. This is most likely to be explained by the type of work that young people engage in; the informal economy rather than the formal economy.

Table 7.6: Multilevel Regression Model of factors associated with dropping out of school before completing the Junior Certificate Examination (Junior cycle leavers only)

	Model 1 Unconditional Model	Model 2 Individual level	Model 3 School level	Model 4 Part time job
Intercept	-.316 (.069)*	-.047 (.148)	.390 (.435)	-.456 (.481)
Male		-.402 (.121)*	-.428 (.123)*	-.427 (.125)*
Professional/Non Manual		-.401 (.111)*	-.395 (.111)*	-.354 (.114)*
Primary or Less		-.360 (.115)*	.354 (.114)*	.326 (.116)*
Full HH Employment		-.417 (.130)*	-.421 (.130)*	-.436 (.135)*
Single parent family		.394 (.177)*	.364 (.177)*	.384 (.180)*
High deprivation		.288 (.145)^	.309 (.150)*	.291 (.150)
Moderate deprivation		.166 (.155)	.220 (.154)	.174 (.155)
Comm/Comp			.273 (.217)	.260 (.217)
Vocational			.336 (.193)	.349 (.192)
Mixed			-.296 (.199)	-.336 (.200)
Socio-mix			-.159 (.116)	-.192 (.117)
Curriular Mix			.063 (.152)	.072 (.152)
No part time job				1.076 (.231)*
First ptj in 1st year				1.378 (.277)*
First ptj in 2nd year				.684 (.298)*
School level Random Effects	**.203 (.071)***	**.085 (.053)**	**.067 (.050)**	**.050 (.048)**

*Indicates coeff/se >2.

Reference categories: female, other social class backgrounds, parents with higher levels of education, living in household exposed to parental unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, began working in 3rd year.

Model 2 of Table 7.6 then considers evidence of possible school context effects on drop out among junior cycle leavers as a function of school type attended, school gender mix, school socio-mix and whether a differentiated curriculum is on offer in senior cycle. However none of these school level factors have reached significance.

Finally, the timing of when a part time job was held in junior cycle was entered into the equation in Model 3 of Table 7.6 above. When part time job status in 1st year was added to the model (not shown below), as expected those who had a PTJ in 1st year were more likely to drop out before completing the Junior Certificate than those who did not, thus confirming previous findings from the ordinal regression

above. Model 3 indicates that junior cycle leavers who began part time job holding earlier in junior cycle – in 1st year and/or second year were more likely to drop out as were those who did not have a part time job at all in junior cycle. Other models (not shown here) also considered whether a part time job was held in the year the school leaver left school, and even when controlling for other factors, those who had a part time job in their final year of schooling, were less likely to drop out during junior cycle without completing the Junior Certificate than those who did not work in their final year and those who had experience of a part time job but who were not working in the final year of schooling[80]. The next section now considers school leaving among senior cycle students in relation to both part time jobs and school organised work experiences.

Early Work Experiences and Drop out among senior cycle students – so near and yet so far…

I now examine the influence of early work experiences on drop out among senior cycle students, taking into account both part time jobs and school organised work experiences. What is it that differentiates school leavers who actually make it to post compulsory education but subsequently drop out from school leavers who complete the senior cycle? While the majority of school leavers (84%) who entered senior cycle also completed senior cycle, 16 per cent dropped out before completing.

The analyses presented in this section differs considerable in that while the previous empirical sections in this chapter have outlined the importance of the timing of part time job holding in junior cycle I now consider all work experiences undertaken in senior cycle, including school organised work experiences. However, before moving on to consider the influence of having a school organised work experience on retention at senior cycle, in this part of the chapter I analyse how part time job holding in junior cycle as well as individual and school level variables can affect track choices at upper second level education. The odds of choosing one of the upper secondary tracks, including dropping out of school, versus completing the Leaving Certificate is tested using a multilevel multinomial logit model analysis in a conditional form, which means that it is conditioned by the previous completion of

[80] These results are likely to be affected by the large proportion of students who stayed on in junior cycle until 3rd year.

the Junior Certificate. While the characteristics of senior cycle leavers who participated in different tracks has been discussed in Chapter 5, the influence of the timing of part time job holding in junior cycle will now be considered in relation to the pathway being pursued.

Descriptive Analyses

Table 7.7 outlines the distribution of characteristics of school leavers across options at senior cycle. Findings indicate that the distribution of senior cycle drop outs shows variation according to a range of individual, socio-economic background and regional factors. Highest level of education attained also varies according to gender and social class background. By examining the characteristics of senior cycle leavers who complete senior cycle with those who do not, we find that a large proportion of those who drop out at this stage of schooling are male, from manual backgrounds, living in households exposed to unemployment, have parents with lower levels of education and are likely to be attending vocational schools. In addition, young people leaving second level education at this stage of education are more likely to be pursuing the LCA or the LCVP than the established Leaving Certificate (See Table 7.7). In terms of part-time job holding at junior cycle, the tabulations meet our expectations in that a high proportion of those who had a part time job in junior cycle dropped out of school before completing senior cycle, however, we also see that a high proportion also continued on to complete the Leaving Certificate Vocational Programme (LCVP).

Multivariate Analyses

Table 7.8 presents the multivariate analyses in the form of a multilevel multinomial regression. The dependent variable consists of four categories: drop out, LCVP completion, LCA completion and the reference category completion of the established Leaving Certificate. Model 1 presents the unconditional model to guage the extent of between-school variation on the four outcomes. Model 1 of Table 7.8 suggests that there is statistically significant variation between schools in the log-odds of dropping out, completing the Leaving Certificate Vocational Programme and

completing the Leaving Certificate Applied (relative to completing the established Leaving Certificate).

Table 7.7: Characteristics of Senior Cycle Leavers according to highest level of education attained, by individual, socio-economic background factors

	Dropped Out senior cycle	Completed LC	Completed LCVP	Completed LCA
Gender				
Male	20.5	57.2	10.5	11.8
Female	11.7	61.5	16.8	10.0
Part Time Job in junior cycle				
PTJ 1st year	33.3	36.9	16.7	13.1
PTJ 2nd year	27.6	42.8	19.4	10.6
PTJ 3rd year	26.3	46.0	16.5	11.2
Parental Social Class				
Higher/Lower Professional	10.6	71.4	12.1	6.0
Non Manual	19.3	54.8	12.4	13.5
Skilled Manual	21.2	47.9	18.9	12.1
Semi-Unskilled Manual	22.0	46.4	14.9	16.7
Unclassified	10.1	64.5	12.3	13.0
Parental Education				
Primary or Less	25.1	43.1	13.0	18.7
Junior Certificate	20.7	54.0	13.1	12.2
Leaving Certificate	13.0	64.4	14.2	8.4
Diploma or Higher	6.8	74.4	13.1	5.7
Unknown	20.4	48.0	18.4	13.3
Household Employment				
Full HH employment	14.0	61.1	14.3	10.6
Exposed to unemployment	18.0	57.7	13.2	11.1
Family Structure				
Single parent household	19.1	59.5	6.9	14.5
Two parents present	15.8	59.4	14.3	10.5
Local socio-economic disadvantage				
High	19.5	56.2	11.4	12.9
Medium	18.9	54.1	16.0	11.0
Low	11.6	65.3	13.5	9.6
School Type				
Secondary	11.4	66.4	13.8	8.4
Comm/Comp	20.4	54.0	12.4	13.2
Vocational	19.6	53.6	14.1	12.7
Gender-Mix of school				
Mixed	17.0	56.8	14.6	11.5
Single-sex	13.6	66.0	11.2	9.0
Socio-mix of school				
Curriculum at senior cycle				
Differentiated	16.4	51.0	18.1	14.3
Not Differentiated	15.1	84.8	0.0	0.0

Table 7.8: Multilevel Multinomial Model of the factors associated with dropping out of school versus complete the Leaving Certificate, complete the LCVP versus the LCE, the LCA versus the LCE

	Drop Out			Leaving Certificate Vocational			Leaving Certificate Applied		
	Model 1 Uncond.	*Model 2 Individual*	*Model 3 School*	*Model 1 Uncond*	*Model 2 Individual*	*Model 3 School*	*Model 1 Uncond*	*Model 2 Individual*	*Model 3 School*
Intercept	*-1.689*	*-2.932*	*-.909*	*-1.7920*	*-2.180*	*-.445*	*-2.585*	*-3.549*	*-.744*
	(.130)*	*(.299)**	*(.851*)*	*(.128)*	*(.285*)*	*(.937)*	*(.187)*	*(.376)**	*(1.195)*
Male		.724 (.155)*	.669 (.156)*		-.399 (.174)*	-.398 (.175)*		.287 (.188)	.236 (.188)
Non Manual		.322 (.203)	.172 (.205)		.039 (.225)	-.057 (.230)		.646 (.256)*	.413 (.250)
Skilled Manual		.538 (.220)*	.396 (.222)		.770 (.236)*	.673 (.240)*		.598(.285)*	.413 (.281)
Semi-Skilled Manual		.555 (.259)*	.404 (.263)		.510 (.297)	.378 (.303)		.929 (.313)*	.716 (.312)*
Unclassified		-.732 (.362)*	-.736 (.359)*		-.140 (.351)	-.187 (.354)		.513 (.362)	.442 (.357)
Primary		1.410 (.276)*	1.261 (.280)*		.497 (.279)	.401 (.281)		1.151 (.318)*	1.047 (.324)*
Lower Secondary		.960 (.263)*	.956 (.265)*		-.091 (.260)	-.117 (.262)		.453 (.310)	.561 (.312)
Upper Secondary		.585 (.262)*	.642 (.263)*		.034 (.241)	.002 (.244)		.151 (.312)	.270 (.312)
Unclassified		1.324 (.343)*	1.462 (.347)*		.665 (.348)	.635 (.356)		1.212 (.406)*	1.511 (.409)*
Full HH Employment		-.149 (.152)	-.067 (.152)		.248 (.164)	.264 (.165)		.138 (.182)	.274 (.180)
Single parent family		.154 (.261)	.171 (.260)		-.941 (.406)*	-.935 (.407)*		-.100 (.304)	-.148 (.303)
High deprivation		.416 (.235)	.415 (.245)		.554 (.260)*	.402 (.270)		.351 (.330)	.275 (.345)
Moderate deprivation		-.330 (.235)	-.312 (.240)		.110 (.254)	.114 (.260)		-.431 (.312)	-.425 (.317)
Community Comp			1.206 (.426)*			.014 (.486)			1.215 (.615)*
Vocational			1.165 (.341)*			.344 (.371)			1.053 (.493)*
Mixed school			-.707 (.339)*			.225 (.368)			-.462 (.498)
Sociomix			-.641 (.215)*			-.572 (.238)*			-.935 (.320)*
Random Effects	**1.831**	**1.545**	**1.504**	**1.566***	**1.828***	**1.799***	**3.177**	**2.917**	**2.839**
	(.327)*	**(.288)***	**(.289)**	**(.313)**	**(.349)**	**(.353)**	**(.623)***	**(.575)**	**(.575)**

Reference Category: Completed the established Leaving Certificate

Table 7.8: Multilevel Multinomial Model of the factors associated with dropping out of school versus complete the Leaving Certificate, complete the LCVP versus the LCE, the LCA versus the LCE

	Drop Out		Complete LCVP		Complete LCA	
	Model 4 Junior Cycle PTJ	*Model 5 PTJ in years of Junior Cycle*	*Model 4 Junior Cycle PTJ*	*Model 5 PTJ in years of Junior Cycle*	*Model 4 Junior Cycle PTJ*	*Model 5 PTJ in years of Junior Cycle*
Intercept	*-.043 (1.095)*	*.479 (.213)*	*.849 (1.006)*	*.625 (.998)*	*1.277 (1.197)*	*.884 (1.206)*
Male	.671 (.169)*	.720 (.172)*	-.364 (.175)	-.329 (.175)	.325 (.186)	.354 (.187)
Non Manual	.165 (.228)	.386 (.233)	-.027 (.227)	-.008 (.229)	.357 (.250)	.605 (.254)*
Skilled Manual	.426 (.245)	.540 (.249)*	.676 (.239)*	.720 (.239)*	.378 (.280)	.518 (.282)
Semi-Skilled Manual	.711 (.285)*	.955 (.289)*	.502 (.301)	.505 (.303)	.803 (.312)*	1.038 (.315)*
Unclassified	-.738 (.400)	-.591 (.410)	-.142 (.358)	-.119 (.356)	.433 (.358)	.584 (.364)
Primary	1.127 (.316)*	1.099 (.313)*	.262 (.283)	.293 (.284)	1.055 (.327)*	.983 (.319)*
Lower Secondary	.855 (.302)*	.838 (.301)*	-.214 (.262)	-.189 (.262)	.519 (.313)	.442 (.309)
Upper Secondary	.778 (.296)*	.667 (.297)*	-.083 (.244)	-.096 (.262)	.262 (.311)	.113 (.310)
Unclassified	1.450 (.386)*	1.047 (.385)*	.535 (.354)	.415 (.348)	1.421 (.402)*	.953 (.407)
Full HH Employment	-.011 (.169)	-.116 (.171)	.306 (.166)*	.273 (.166)	.298 (.184)	.177 (.185)
Single parent family	.073 (.292)	.037 (.293)	-.923 (.400)*	-.936 (.399)*	-.171 (.307)	-.130 (.305)
High deprivation	.317 (.272)	.347 (.277)	.200 (.264)	.217 (.263)	.044 (.325)	.071 (.325)
Moderate deprivation	-.571 (.277)	-.538 (.281)	.015 (.261)	.016 (.261)	-.464 (.305)	-.444 (.305)
Community Comp	1.095 (.487)*	1.016 (.502)*	-.171 (.447)	-.256 (.447)	1.094 (.548)*	.991 (.551)
Vocational	1.099 (.386)*	1.206 (.396)*	.011 (.346)	.041 (.345)	.747 (.442)	.798 (.444)
Mixed school	-1.308 (.425)*	-1.211 (.436)*	-.562 (.369)	-.451 (.367)	-1.503 (.473)*	-1.381 (.478)*
Sociomix	-.717 (.286)*	-.632 (.293)*	-.551 (.260)*	-.504 (.258)	-1.026 (.319)*	-.936 (.321)*
PTJ junior cycle	.846 (.174)*		.791 (.177)*		-.178 (.205)	
PTJ 1st year		1.465 (.374)*		.346 (.397)		1.613 (.470)*
PTJ 2nd year		-.230 (.322)		.556 (.318)		-.717 (.415)
PTJ 3rd year		.479 (.213)*		.303 (.225)		.085 (.244)
Random Effects	**1.436(.327)***	**1.545 (.288)***	**1.566*(.313)**	**1.828*(.349)**	**3.177(.623)***	**1.760 (.394)***

Reference Category: Completed the established Leaving Certificate *Indicates coeff/se >2.

Reference categories: female, professional class backgrounds, parents with primary or lower levels of education, living in household exposed to parental unemployment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no part time job junior cycle, no part time job 1st year, no ptj 2nd year, no ptj 3rd year.

Model 2 of Table 7.8 then considers whether the stage of leaving school is associated with individual level factors. We now see that males have higher log odds of dropping out during senior cycle than do females and that males have a lower log odds of completing the LCVP than completing the established Leaving Certificate relative to females. In relation to parental social class background, we find that those from a skilled manual background are more likely to drop out, complete the LCVP or LCA than complete the established Leaving Certificate. Furthermore those from unskilled manual backgrounds are more likely to drop out or complete the Leaving Certificate Applied than complete the established Leaving Certificate relative to those from professional backgrounds. Significant findings were also evident in relation to parental education levels. Model 2 of Table 7.8 also indicates that those whose parents have lower levels of education are more likely to drop out of school during senior cycle than complete the established Leaving Certificate relative to those whose parents have higher levels of education. There were no differences in parental education levels among those who completed the LCVP and those who completed the established LC. However school leavers whose parents had primary or lower levels of education were more likely to drop out and complete the Leaving Certificate Applied than the established Leaving Certificate relative to those whose parents had a diploma or higher level of education. The effect of parental education levels are particularly evident among those who drop out relative to those who complete the established Leaving Certificate.

Model 3 of Table 7.8 then presents school level variables. Controlling for individual level variables, we find that school leavers attending community or vocational schools are more likely to drop out during senior cycle (than complete established Leaving Certificate) relative to those attending secondary school. School leavers attending mixed schools are less likely to drop out during senior cycle (than complete the established Leaving Certificate) than those attending single-sex schools. Furthermore, the higher the school mean SES the lower the likelihood of dropping out of school during senior cycle than completing the established Leaving Certificate. It is interesting to note that the addition of school level factors eliminates the effect of parental social class background. However, none of the school level variables could significantly differentiate among those who completed the

established Leaving Certificate Vocational Programme and those who completed the established Leaving Certificate. Finally, controlling for school level variables, we find that school leavers attending community or vocational schools are more likely to complete the Leaving Certificate Applied (than complete established Leaving Certificate) relative to those attending secondary school. As above, the higher the school mean SES the lower the likelihood of completing the Leaving Certificate Applied than completing the established Leaving Certificate. As before the addition of school level factors reduces the effect of parental social class background. In terms of school level variance, we see little reduction when school level variables are added to the model.

Table 7.8b then presents a continuation of the multilevel multinomial model with the addition of Model 4 and Model 5. Consistent with our expectations based on previous models, in Model 4 in Table 7.8b the coefficient for *part time job held during junior cycle* tells us that school leavers who had a part time job in junior cycle are significantly more likely than those who did not have a part time job in junior cycle to drop out during senior cycle and complete the Leaving Certificate Vocational programme than complete the established Leaving Certificate. No such effect was evident among those who completed the LCA relative to those who completed the established Leaving Certificate. Model 5 of Table 7.8b then considers the years in which term time jobs were held, and the coefficient for *part time job held in 3rd year* tells us that school leavers who had a part time job in 3rd year were more likely than those who did not have a part time job in their Junior Certificate year to drop out of school than complete the established Leaving Certificate. The models also show that the overall effect of social origin is strong: those from a higher social class background and with more educated parents are less likely to drop out, pursue LCVP or LCA than complete the established Leaving Certificate.

These findings indicate that there is a clear effect of part time job holding in 1st year on educational progression. The results from the propensity score matching procedure indicate that this finding is robust and that once matching techniques are used, there is very little selection bias evident. The confirmatory analyses also indicated that the coefficient for part time job holding in 1st year continues to be

significant. The analyses then went on to consider the role of part time job holding in junior cycle on the acquisition of a Junior Certificate qualification among junior cycle leavers. This analyses considered the timing of when junior cycle leavers began to hold a part time job in junior cycle. Multilevel logit analyses indicated that students who did not have a part time job in junior cycle, those had their first part time job in 1st year and those who had their first part time job in 2nd year were all more likely to drop out of school before completing the Junior Certificate Examination than those who had their first part time job in 3rd year. However, these results are likely to be affected by the large proportion of students who stayed on to complete the Junior Certificate. Table 7.8 then reported findings that among senior cycle leavers, those who had a part time job in junior cycle are more likely to have dropped out in senior cycle or complete the Leaving Certificate Vocational Programme than complete the established Leaving Certificate. Further analyses considered a dynamic approach to part time job holding in junior cycle and the results indicated that students who held a part time job in 1st year were also more likely to drop out of school during senior cycle or complete the Leaving Certificate Applied than complete the established Leaving Certificate. Furthermore, part time job holding in 3rd year could only differentiate those who dropped out in senior cycle from those who completed the established Leaving Certificate. The next section now moves on to consider retention *within* curricular tracks.

Early work experiences and Drop Out *within* Curricular Tracks

Table 7.9: Drop out rates within curricular tracks

	Programme being pursued		
	Leaving Certificate	Leaving Certificate Vocational	Leaving Certificate Applied
% Dropped Out	13.5	9.4	33.1
% Completed	86.5	90.6	66.9
	100	**100**	**100**

Table 7.9 clearly indicates that drop out rates within curricular tracks are highest among Leaving Certificate Applied students and lowest among those pursuing the Leaving Certificate Vocational Programme. When the factors associated with drop

out within each of the tracks are examined individually, having a school organised work experience in senior cycle had a positive effect on retention for those pursuing the Leaving Certificate Applied, a negative effect on retention for the established Leaving Certificate, while school organised work experience could not differentiate those who dropped out and those who stayed among young people pursuing the Leaving Certificate Vocational Programme. While chapter 5 has highlighted that senior cycle programmes, particularly the Leaving Certificate Applied and established Leaving Certificate programme have different student intakes, we now also find that these programmes also have different rates of drop out and that school organised work experience exerts a positive influence on retention, particularly for those pursuing the Leaving Certificate Applied and the established Leaving Certificate.

Drop out among those pursuing the Leaving Certificate Applied

Because of the small number of cases involved, multivariate analyses are not appropriate when it comes to predicting factors associated with drop out among those pursuing Leaving Certificate Applied. Table 7.10 provides a summary of the factors that are associated with participation in the Leaving Certificate Applied, participation in LCA school organised work experience and factors associated with drop out among those pursuing the Leaving Certificate Applied. The table shows that males were more likely to drop out than females (38 per cent compared to 27 per cent), those who did not have an LCA work experience were more likely to drop out than those who did (43 per cent compared to 28 per cent), and those who had a part time job in 1st year or 2nd year or 3rd year were all more likely to drop out. The finding that school leavers who did not have an LCA work experience were more likely to drop out than those who did is particularly important, as it indicates that this type of work experience encourages young people to remain in school and complete their second level education. By providing a summary of the variables that are associated with participation in and drop out of the Leaving Certificate Applied, we make some inferences regarding any possible selection bias that may be at play. What we see is that confounding variables are clearly at play in terms of LCA participants, that is, the factors that are associated with participation in LCA are also associated with drop

out in LCA. Students who had a part time job in 2nd or 3rd year were more likely to participate in LCA but these students were also more likely to drop out of LCA. A further problem of unobserved endogeneity is also evident: given that observed factors influence both participation in and outcomes of the programme, it is likely then that unobserved factors that influence participation in Leaving Certificate Applied are also likely to influence the impacts of the programme. In this case, the degree of 'work-readiness' or degree of 'engagement in school' has not been observed which may lead to potential selection bias.

Table 7.10: Summary of variables significantly associated with participation in LCA, participation in LCA SCHWK and drop out among LCA participants

Participation in LCA	Participation in LCA SCHW	Drop Out
Gender	Gender	Gender
Social Class Background	No impact of family economy variables	LCA work experience
Household Employment	No impact of school type	**PTJ in 2nd year**
School type attended	No impact of early work experiences through ptjs	**PTJ in 3rd year**
PTJ in junior cycle		
PTJ in 1st year		
PTJ in 2nd year		
PTJ in 3rd year		
TY participation		
Region		
Socio-economic deprivation		

Drop out among those pursuing the Leaving Certificate Vocational Programme

Again, multivariate analyses are not particularly appropriate given the small number of cases. Unlike Leaving Certificate Applied students, school organised work experience as part of the Leaving Certificate Vocational Programme does not seem provide a retention function, that is, it is not related to drop out among LCVP students. Table 7.11 outlines the factors that are associated with participation in LCVP, participation in LCVP SCHWK and factors associated with drop out among LCVP students. Only part time job holding in 3rd year could predict the probability of dropping out, but participation in a part time job in 3rd year was also associated with participation in LCVP, thus, demonstrating a possible selection effect, as was also found in the case of LCA students.

Table 7.11: Summary of variables significantly associated with participation in LCVP, participation in LCVP SCHWK and drop out among LCVP participants.

Participation in LCVP	Participation in LCVP SCHWK	Drop Out
Gender Social Class Background Parental Employment **PTJ in 3rd year** PTJ in 2nd year PTJ in 3rd year Local Authority Area lived in Regional Deprivation	PTJ 3rd year PTJ 5th year Living in city	**PTJ in 3rd year**

The role of early work experiences in drop out among all senior cycle leavers

In this section I examine retention among senior cycle leavers when the typology of work experiences undertaken over second level education are taken into account. A multilevel logistic regression model is used. The dependent variable is binary (1=drop out, 0=completed). Table 7.12 presents the results of estimations from five models.

Model 1 in Table 7.12 is the unconditional model to guage the magnitude of variation between schools in drop out among senior cycle leavers by estimating a model with no predictors at either level. The results indicate that there is significant variation across schools in the proportion of senior cycle leavers who drop out before completing the Leaving Certificate, Leaving Certificate Vocational or Leaving Certificate Applied programmes. As before, we hypothesise that drop out will be higher among males, those from lower social class backgrounds and those with parents who have lower levels of education. Furthermore, we hypothesise a 'contextual' effect at level 2 such that a lower school-mean SES will predict higher drop out.

Model 2 of Table 7.12 considers individual level factors such as gender, parental social class background, parental education, parental employment, family structure and measure of socio-economic deprivation in the area in which the school leaver lives. As expected we find that males are more likely to drop out than females. Furthermore, all else being equal those whose parents have higher levels of education

(upper second level or tertiary level) are less likely to drop out than those with parents who have lower levels of education. We also find that those pursuing the LCVP are less likely to drop out of senior cycle than those who completed the established Leaving Certificate while those who were pursuing the Leaving Certificate Applied are more likely to drop out. Even when controlling for an array of individual, school level and local area variables, the effects of curricular track being pursued remain constant.

Model 3 of Table 7.12 considers school level characteristics. The individual level effects hold as before, but we now see that those attending community, comprehensive or vocational schools are more likely to drop out than those attending secondary schools. Models 4 and 5 of Table 7.12 then attempt to estimate whether the early work experiences that the senior cycle leavers had engaged in before leaving school could contribute to predicting senior cycle drop out probabilities. As expected Model 4 of Table 7.12 indicates that students who had a part time job in junior cycle are more likely to drop out of school in senior cycle. When the typology of early work experiences was added to Model 5 of Table 7.12 we see that all else being equal, (including the programme being pursued in senior cycle), those with experience of part time jobs only are less likely to drop out of school than those without work experience of any kind. We see that the coefficients for the programme being pursued are much smaller when early work experiences undertaken are taken into account, indicating that the presence of early work experiences reduces the effect of curriculum being pursued on drop out.

However, comparing the drop out probabilities of senior cycle leavers controlling for early work experiences does not give convincing evidence of a positive impact of having a part time job on retention at senior cycle relative to not having any type of work experience at all. There are a number of problems, in particular selection effects, when using a variable in such simplified terms. The reason being, that there may be reasons why those who have experience of part time jobs only are less likely to drop out that are independent of the work experience itself.

Table 7.12: Multilevel Binary Logistic Regression of factors influencing the probability of dropping out before completing senior cycle education (all senior cycle leavers) Reference Category: Completed the established Leaving Certificate

	Model 1 Unconditional	Model 2 Individual	Model 3 School Effects	Model 4 PTJ Junior Cycle	Model 5 All Early work experiences
Intercept	*-2.020 (.114)**	*-2.068 (.306)*	*-.913 (.778)*	*-1.117 (.784)*	*-.780 (.777)*
Male		.692 (.168)*	.646 (.168)*	.596 (.170)*	.653 (.169)*
Non Manual		.146 (.217)	.050 (.222)	.109 (.223)	.038 (.223)
Skilled Manual		.253 (.236)	.166 (.240)	.201 (.242)	.195 (.243)
Semi Skilled Manual		.255 (.276)	.157 (.283)	.207 (.285)	.190 (.285)
Unclassified		-.693 (.372)	-.713 (.375)*	-.623 (.377)	-.700 (.379)
Junior Certificate		-.027 (.214)	-.007 (.215)	.005 (.216)	-.017 (.216)
Leaving Certificate		-.456 (.229)	-.359 (.231)	-.287 (.232)	-.419 (.233)
Diploma or Higher		-1.090 (.305)*	-.970 (.308)*	-.815 (.310)*	-1.072 (.311)*
Unclassified		-.161 (.333)	-.130 (.335)	-.082 (.339)	-.085 (.337)
Full HH Employment		-.249 (.165)	-.263 (.166)	-.299 (.167)	-.233 (.167)
Single parent family		.346 (.274)	.370 (.275)	.424 (.276)	.314 (.277)
High Deprivation		.218 (.236)	.262 (.246)	.230 (.246)	.354 (.246)
Moderate Deprivation		-.180 (.237)	-.159 (.242)	-.171 (.242)	-.091 (.240)
Pursuing LCVP		-.598 (.271)*	-.643 (.274)*	-.746 (.276)*	-.709 (.278)*
Pursuing LCA		.816 (.191)*	.750 (.192)*	.727 (.193)*	.546 (.207)*
Community/Comprehensive			.820 (.369)*	.769 (.368)*	.871 (.363)*
Vocational			.760 (.304)*	.724 (.305)*	.776 (.299)*
Mixed			-.562 (.302)	-.574 (.303)	-.506 (.297)
Sociomix			-363 (.193)	-.362 (.195)	-.360 (.190)
Part time job junior cycle				.760 (.168)*	
Both PTJ & SCHWK					-.071 (.219)
SCHWK only					.217 (.238)
PTJ only					-.787 (.230)*
Random Effects	1.111 (.245)	.795 (.205)	.794 (.207)	.774 (.205)	.737 (.199)

Reference categories: female, professional class backgrounds, parents with primary or lower levels of education, living in household exposed to parental unemployment, both parents present, low deprivation area, pursued the established Leaving Certificate curriculum, secondary school, single-sex school, no differentiated curriculum at senior cycle, no part time junior cycle, no work experience senior cycle. *Indicates coeff/se >2.

7.5.2. Early Work Experiences and Examination Performance

The aim of this section is to examine the influence of early work experiences on academic performance in State examinations, namely, the Junior Certificate and the Leaving Certificate examinations.

In doing so, the following research questions are addressed;

- What is the relationship between part time job holding and educational performance? Does this relationship differ according to the programme being pursued at senior cycle? Does educational performance vary across schools?
- What is the relationship between having school organised work experience and educational performance? Does this relationship differ according to the programme being pursued?

Educational Performance in the Junior Certificate and part time job holding

All school leavers are asked about their performance in the last examination taken before leaving school from the question '*At this examination (last examination sat) what level paper did you take and what grades did you get*?

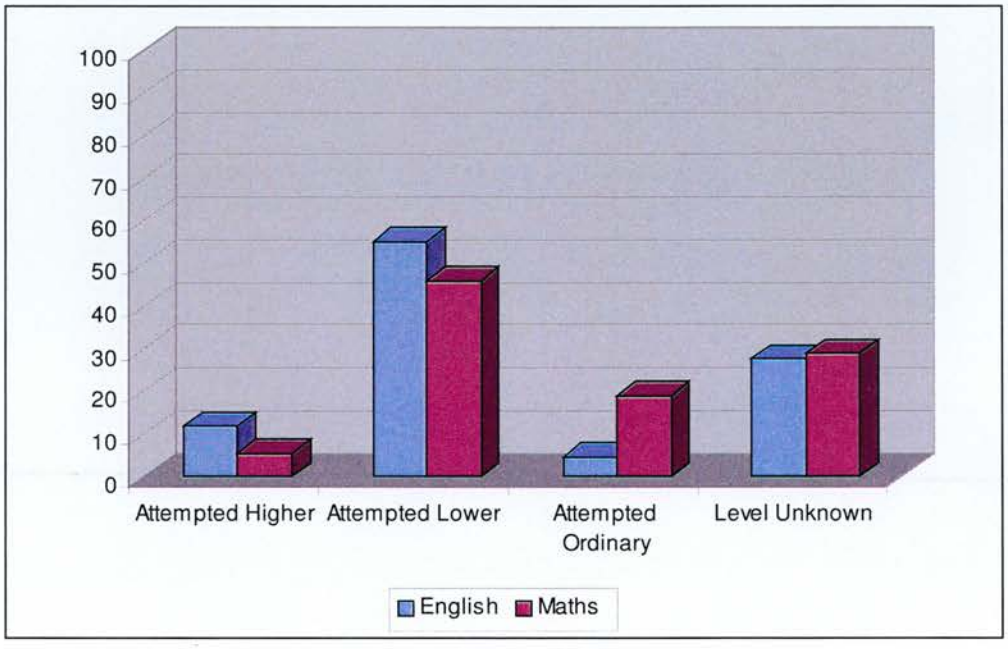
Strategy 1: Overall Performance Score (OPS)

In an attempt to estimate the influence of having a part time job on young peoples' performance in the junior certificate using SLS03, an Overall Performance Score (OPS) was derived which gave an interval level scale ranging from 14-82. However, attainment data for junior certificate results is inadequate to examine a relationship with part time job holding in junior cycle. Firstly, while Junior Certificate results can be identified for school leavers for whom the Junior Certificate was the last examination at second level education, there is a large volume of missing data. Because of this, an overall performance score (OPS) could be derived for just 42 per cent of junior cycle leavers who had completed the Junior Certificate before leaving second level education. Clearly, the OPS score derived is problematic and given these limitations, it is clear that it is not a suitable dependent variable.

Strategy 2: Level of examination attempted in English and Maths

A second modelling strategy considered the level of Maths and English examinations attempted by the respondents and to estimate whether a difference exists according to gender, social class and part time job experience during junior cycle. Maths and English were chosen, as performance in these examinations has been used in the past to reflect the level of basic numeracy and literacy skills. While data available on the level of examination attempted in the junior certificate English and Maths papers were of better quality than that of actual performance in the examination, missing information was still a problem for 25 per cent of cases.

Figure 7.7: Level of English and Maths Attempted in the Junior Certificate Examination among those who left school upon completion of the Junior Certificate



Among those who left school upon completion of the Junior Certificate, lower level papers were most commonly attempted. The level attempted at each examination was considered according to a range of individual factors, but no statistical associations were evident. There was one exception; females were more likely to attempt a higher paper in English compared to males – 21 per cent and 9 per cent respectively, but this was not evident in Maths.

Figures 7.8 and 7.9 illustrate the distribution of levels of the English and Maths examinations attempted by school leavers who had left school at some stage after sitting the Junior Certificate. It would seem that the vast majority left school having sat lower level papers. When the level of paper attempted in the Junior Certificate examination was examined in relation to measures of part time employment in junior cycle, a significant relationship was not evident.

Figure 7.8: Level of English Attempted in Junior Certificate among those who left school having completed the Junior Certificate by Part Time Job Status in 3rd Year

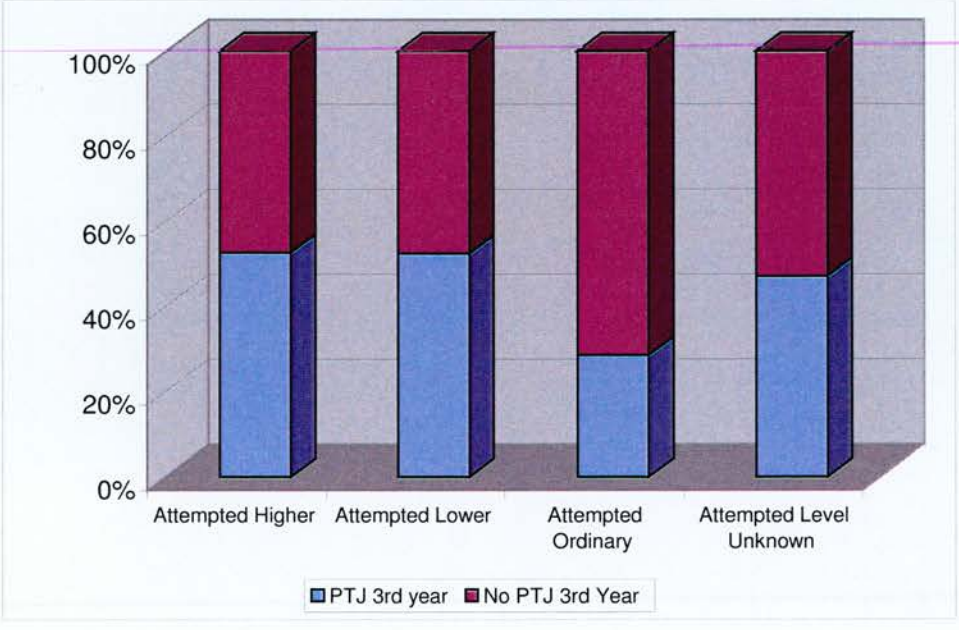
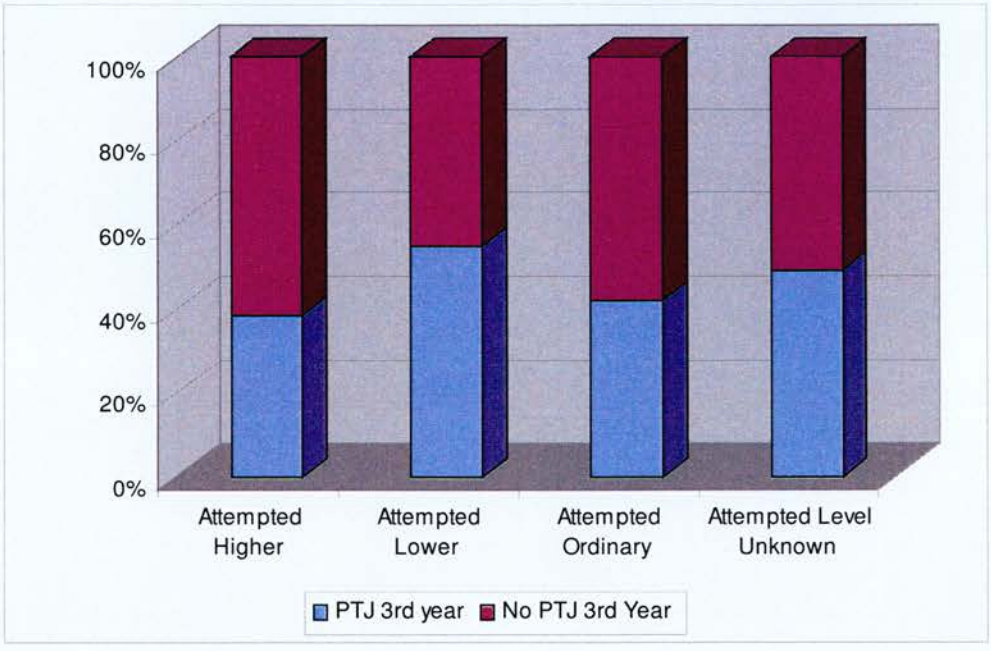


Figure 7.9: Level of Maths Attempted in Junior Certificate among those who left school having completed the Junior Certificate by Part Time Job Status in 3rd Year



Educational Outcome Number 2: Examination Performance in the Leaving Certificate and Early Work Experiences

The influence of part time job holding on examination performance is perhaps the most frequently occurring research question asked in studies of part time job holding. As the literature section has outlined, previous studies in the Irish context have shown that having a part time job in 6th year has a negative influence on Leaving Certificate performance – even those working fewer than ten hours per week appear to achieve lower grades than those who do not work at all (McCoy and Smyth 2004) but less attention has been paid to the influence of part time employment gained throughout second level education on examination performance. The empirical results in this chapter have identified that those who held a term time job in 1st year were unlikely to have progressed to complete the Leaving Certificate Examination. Thus, it is important to keep in mind that this is a select sub-sample of school leavers. This section examines whether part time job holding during junior cycle have an influence on examination performance in the Leaving Certificate. Because

Leaving Certificate Applied students pursue a different type of Leaving Certificate examination, they are not considered in this analysis.

A substantial contribution that this section makes to the literature is the consideration of the influence of part time job holding on students who pursued different programmes while in school. In Ireland, students of the established Leaving Certificate and the Leaving Certificate Vocational Programme pursue a different programme at second level education in terms of what is offered in the curriculum (see Chapter 5), while the terminal examination is the same for both groups. No previous study, however, has examined whether the relationship between part time job holding and academic achievement in terms of examination performance in the Leaving Certificate differs between students pursuing the established Leaving Certificate and the Leaving Certificate Vocational Programme.

The following analyses consider these aspects of the education system when examining the influence of early work experience on examination performance. The analyses focus specifically on those who 'survived' second level education, that is, it considers those who have completed second level education through participation in either the established Leaving Certificate or Leaving Certificate Vocational Programme, cumulating in the Leaving Certificate examination. As outlined earlier in this chapter, the dependent variable was conceptualised in the form of grade point average (GPA), and a number of independent and school characteristics were considered, relating to the individual and socio-economic background of school leavers as well as other factors such as school type attended and the measure of local socio-economic deprivation in the area that the school leaver lives.

Table 7.13 provides descriptive figures for the average score obtained by those who sat the Leaving Certificate examination. The first column presents the average GPA for all who sat the Leaving Certificate, irrespective of the programme being pursed. The second column presents the average GPA for those who pursued the established Leaving Certificate and the third for those who pursued the LCVP. The bivariate associations indicate that a number of variables that are significantly associated with GPA at the bivariate level.

Table 7.13: Average Score Obtained in the Leaving Certificate Examination for LC and LCVP students

	All who completed The Leaving Certificate	Those who completed The established LC	Those who completed the LCVP
Gender			
Male	14.10	14.63	11.60
Female	14.59	14.66	14.37
Parental Social Class			
Higher/Lower Professional	15.18	15.3	14.4
Non Manual	13.93	14.4	11.6
Skilled Manual	13.85	14.2	13.0
Semi-Unskilled Manual	12.77	12.6	13.1
Unclassified	14.36	14.3	14.5
Parental Education			
Primary or Less	12.36	12.3	12.5
JC	13.34	13.4	12.8
LC	14.94	15.0	14.6
Diploma or Higher	15.88	16.4	13.1
Unknown	11.95	12.4	10.3
Parental Employment			
Full Household Employment	14.53	14.9	13.0
Exposed to Unemployment	14.19	14.3	13.5
Family Structure			
Single parent household	13.95	14.1	11.6
Two parents present	14.40	14.6	13.3
School Type Attended			
Secondary	15.56	15.7	14.5
Community/Comprehensive	14.06	14.4	12.6
Vocational	12.69	12.9	11.9
Local socio-economic disadvantage			
High	13.6	13.8	12.9
Medium	14.1	14.5	12.5
Low	14.8	15.0	14.2
Number of Years in Education			
5 year cycle	13.68	13.8	12.5
6 year cycle	15.55	15.6	14.6
Leaving Certificate Pursued			
Established LC	14.64	N/A	N/A
LCVP	13.28	N/A	N/A
SCHWK			
Yes	14.9	15.7	13.3
No	14.0	14.1	13.2

At the bivariate level, the findings generally replicate other studies of examination performance in the Leaving Certificate: gender can differentiate attainment, with girls achieving higher grades than males. Furthermore, examination performance continues to be differentiated by social class - young people from lower professional, non manual, skilled manual and semi-unskilled manual backgrounds show lower academic performance compared to those from higher professional backgrounds. The

findings also indicate the persistent role of cultural capital – as parent's highest level of education increases, so too does grade point average. While differences are evident in Table 7.13, bivariate associations indicate that household employment situation or family structure has no significant effect on grade point average. In relation to school type attended, students who attended community/comprehensive or vocational schools achieved significantly lower grades than those attending secondary schools. Table 7.13 also illustrates that students who completed the established Leaving Certificate achieve higher grades than those who completed the Leaving Certificate Vocational Programme. This finding is in contrast to those of Tuhoy (2002) who found that LCVP students out-perform those who pursue the established Leaving Certificate. There are a number of reasons as to why conflicting finings may have occurred. Firstly, Tuohy uses a different measure of educational performance, instead of devising a grade point average, he measures the number of honours and passes attained by school leavers. Secondly, given that attainment data using the SLS03 is not wholly satisfactory, LCVP attainment is likely to be under-reported as school leavers may not have included the link modules when filling in the questionnaire. Furthermore, school leavers who pursued a six-year cycle had a higher grade point average than those who pursued a five year cycle and this was the case for both Leaving Certificate and Leaving Certificate Vocational Programme students.

In order to obtain a better estimation of the influence of early work experiences on academic performance, bivariate associations were estimated for LC students and LCVP students separately. The findings indicated that a range of variables had a positive association with educational performance in the Leaving Certificate (school organised work experience, attending secondary or community schools, those who were never truant in 6^{th} year, having grinds in 6^{th} year and those who combined school organised work experiences and part time jobs) and a negative association (TY participation, working class social class background, low levels of parental education, living in areas of high deprivation, having a part time job). On the other hand, few variables showed to have a significant association on LCVP educational performance – gender, TY participation, social class, area deprivation, school type,

truancy, grinds). Most notably no work related variables were associated with on LCVP performance.

In order to examine the relationship between part time job holding and grade point average, a number of different measures of part time job holding were used, however none of the measures of part time job holding were found to demonstrate and association with examination performance in the Leaving Certificate. To illustrate this point, Table 7.14 considers part time job status in junior cycle, separately for Leaving Certificate and Leaving Certificate Vocational Programme school leavers.

Table 7.14: Multilevel OLS Regression: GPA and part time job in junior cycle

	School Leavers who completed the established Leaving Certificate		**School Leavers who completed the Leaving Certificate Vocational**	
	Model 1	*Model 2*	*Model 1*	*Model 2*
Constant	11.115 (.354)	11.012 (.369)	10.766 (.520)	10.620 (.603)
PTJ in junior cycle		.612 (.629)		.499 (1.050)
Between school	12.613 (2.482)	12.673 (2.486)	4.070 (3.810)	3.890 (3.780)
Within school	49.120 (2.443)	49.042 (2.440)	49.120 (5.589)	49.227 (5.594)
VPC	20%		7%	

Model 1 presents the unconditional model indicating that educational performance among those who completed the established Leaving Certificate varies significantly across schools. The overall mean of grade point average for those who completed the established Leaving Certificate is 11.1 while it is 10.7 for those who completed the Leaving Certificate Vocational Programme. Approximately 20% of the total variance in grade point average among those who completed the established Leaving Certificate can be attributable to differences between schools while the corresponding variation is 7% among those who completed the LCVP. In Model 2 we then see that for both groups the coefficient on part time job status in junior cycle is positive but not significant. This would indicate that having a part time job in junior cycle is not generally associated with examination performance in the terminal examination. Analyses were also carried out in relation to part time job holding in 3rd year, part time job holding in 6th year and hours worked in 6th year, however, there

was no association between these measures of part time job holding and examination performance.

School Organised Work Experience and Grade Point Average

The descriptive means in Table 7.13 indicate that having a school organised work experience has a positive impact on examination performance, meaning that school leavers who had a school organised work experience did somewhat better in their examination than those who did not, and that spending more days on work experience is generally associated with better grades[81] (not shown). However, this was particularly evident for students who completed the established Leaving Certificate rather than students who completed the Leaving Certificate Vocational Programme. Table 7.15 regresses grade point average on having a school organised work experience at any stage of senior cycle, separately for Leaving Certificate and Leaving Certificate Vocational Programme students.

Table 7.15: Multilevel OLS Regression: GPA and school organised work experience

	School leavers who completed the established Leaving Certificate	**School leavers who completed the Leaving Certificate Vocational Programme**
Constant	10.419 (.396)	10.692 (.789)
School Organised Work Yes Ref: No	2.028 (.562)*	.123 (.989)
Between school variance	11.691 (2.373)	4.147 (3.820)
Within school variance	48.832 (2.427)	49.057 (5.585)

*Indicates coeff/se >2.

We now see a positive association for those pursuing the LC but not the LCVP. This could be due to the fact that many Leaving Certificate students get their school organised work experiences in Transition Year which has been proven to be a selective programme in itself, in the sense that TY students generally perform better in the Leaving Certificate examination (Smyth, Byrne and Hannan 2004).

[81] Those who spent between 8 and 21 days on a school organised work experience achieved higher attainment in the Leaving Certificate.

It is important to note here that a bivariate OLS estimate of the effect of school organised work experience participation in senior cycle on examination performance among Leaving Certificate students is likely to be biased because ability among other measures is unobserved but is likely to be correlated with both participation in the Leaving Certificate examination and having a part time job in junior cycle. That is, the omission of 'ability' from Table 7.15 leads the estimate of the effect of having participated in a school organised work experience on examination performance among Leaving Certificate students from that equation to be larger that it would have been if a variable for ability were instead included in the equation. Furthermore, a correlation between the independent variable and the error term may emerge because students may choose to work opt for a programme in senior cycle that offers school organised work experiences based on their expectations about the variability of Y (examination performance) and hence their own expectations of the causal effect itself. Furthermore, when grade point average is regressed on the work experience status of young people upon completion of the Leaving Certificate, the coefficients for those with PTJ+SCHWK, and SCHWK are positive and significant indicating an association with higher grades compared to school leavers with experience of part time jobs only (not shown here) but this was again evident only for young people who sat the established Leaving Certificate but not for those who completed the Leaving Certificate Vocational. These findings follow those of Stern et al., (1997) who reported a negative association between hours worked and grade point average is less strong for high school students in co-op than in non-school supervised jobs. The next section now moves on to multivariate analyses of educational performance in the Leaving Certificate examination.

Multivariate Analysis of Educational Performance in the Leaving Certificate examination – those who completed LC and LCVP

A multilevel OLS regression was undertaken in order to model the relationship between the dependent variable (GPA) and a set of independent variables including characteristics of the students, their families, the school and the area they live in and is shown in Table 7.16. Because of the large number of variables that showed

bivariate associations with GPA, the selection of variables considered in the final model consisted of those obtained from a stepwise selection method using OLS.

Model 1 of Table 7.16 present the results of the unconditional model to guage whether there are significant differences between schools in grade point average scores. The variance partition coefficient is .164 indicating that about 16% of the total variance in grade point average may be attributed to differences between schools.

Model 2 of Table 7.16 considers individual level variables. We now see that students whose parents have lower second level education or less fare less well in the Leaving Certificate examination than those who parents have higher levels of education. Students living in areas of moderate socio-economic deprivation fare less well than those living in areas of low socio-economic deprivation. Models 3-5 of Table 7.16 consider school level characteristics. When school type is added to the model, we now see a reduction in the between-school variance and that the type of school attended has an influence on grade point average. The coefficient for attending a vocational school or a community or comprehensive school is negative and significant indicating that students attending these schools do less well in examination performance than those attending secondary schools. The gender mix of the school and the socio-economic mix of the school are added to Model 4. The effect of parental education remains strong, but we now see that students attending community/comprehensive schools do not fare less well than those attending secondary schools. While it did not reach significance, it would seem that students attending schools with a higher average socio-economic student intake have higher attainment. Model 5 then considers whether the school offers a differentiated curriculum at senior cycle but the results remain the same.

Table 7.16: Multilevel OLS Regression estimating Educational Performance in the Leaving Certificate

	Model 1 Unconditional Model	Model 2 Individual	Model 3 School type	Model 4 Gender mix Socio-mix	Model 5 School offers Differentiated senior cycle	Model 6 programme pursued by school leaver
Intercept	11.058 (.314)	12.971 (.755)	13.803 (.773)	10.784 (2.112)	11.408 (2.171)	10.733 (2.118)
Female		-.370 (.457)	-.356 (.452)	-.383 (.453)	-.416 (.453)	-.376 (.453)
Lower Professional		-.212 (.678)	-.144 (.676)	-.031 (.680)	-.007 (.680)	-.033 (.680)
Non Manual		-.095 (.697)	.109 (.697)	.346 (.712)	.375 (.712)	.346 (.712)
Skilled manual		.181 (.783)	.385 (.782)	.591 (.792)	.623 (.792)	.572 (.795)
Semi skilled manual		-.470 (.956)	-.417 (.953)	-.104 (.973)	-.108 (.973)	-.115 (.974)
Unclassified		-.747 (.969)	-.617 (.966)	-.487 (.970)	-.472 (.970)	-.488 (.970)
Primary or less		-2.588 (.781)*	-2.299 (.782)*	-2.213 (.784)*	-2.203 (.784)*	-2.220 (.784)*
Lower secondary		-1.810 (.665)*	-1.646 (.665)*	-1.601 (.666)*	-1.577 (.666)*	-1.599 (.666)*
Upper secondary		-.196 (.595)	-.159 (.593)	-.137 (.593)	-.117 (.593)	-.138 (.593)
Unclassified		-2.702 (1.046)*	-2.420 (1.045)*	-2.402 (1.045)*	-2.339 (1.046)*	-2.417 (1.046)*
Full HH employment		.308 (.443)	.294 (.442)	.293 (.442)	.292 (.442)	.287 (.442)
Single parent family		-.353 (.827)	-.238 (.825)	-.251 (.825)	-.251 (.825)	-.233 (.827)
High deprivation		-.920 (.662)	-.886 (.644)	-.646 (.659)	-.587 (.660)	-.654 (.660)
Moderate deprivation		-1.425 (.619)*	-1.470 (.606)*	-1.395 (.606)*	-1.347 (.606)*	-1.397 (.606)*
Completed LCVP						.170 (.566)
Community comp			-2.073 (.920)*	-1.715 (1.031)	-1.676 (1.029)	-1.709 (1.031)
Vocational			-2.534 (.664)*	-2.015 (.836)*	-1.967 (.835)*	-2.017 (.836)*
Mixed				-.120 (.774)	.069 (.788)	-.126 (.774)
School mean SES				.775 (.490)	.689 (.495)	.784 (.491)
Differentiated curriculum in senior cycle					-.807 (.666)	
Between school variance	9.918 (1.908)	9.337 (1.896)	7.641 (1.703)	7.420 (1.678)	7.362 (1.671)	7.400 (1.676)
Within school variance	50.201 (2.209)	48.844 (2.148)	49.001 (2.152)	49.004 (2.152)	48.970 (2.150)	49.010 (2.152)
*Indicates coeff/se >2.						

Reference categories: male, professional class backgrounds, parents with tertiary or higher levels of education, living in household exposed to parental unemployment, both parents present, low deprivation area, completed the established Leaving Certificate, secondary school, single-sex school, no differentiated curriculum at senior cycle.

Table 7.16 continued: OLS Regression estimating Educational Performance in the Leaving Certificate

	Model 7 Truancy & Grinds in 6th year	Model 8 Transition Year participation	Model 9 PTJ in 6th year	Model 10 Model Early work experiences
Intercept	10.510	-.233	9.939	10.569
	(2.114)	(.448)	(2.113)	(2.135)
Female	-.231 (.450)	-.233 (.448)	-.231 (.448)	-.237 (.448)
Lower Professional	-.354 (.675)	-.290 (.673)	-.297 (.673)	-.262 (.673)
Non Manual	.261 (.705)	.277 (.702)	.266 (.702)	.261 (.702)
Skilled manual	.505 (.787)	.645 (.785)	.622 (.786)	.546 (.787)
Semi skilled manual	.064 (.964)	.200 (.961)	.194 (.961)	.173 (.960)
Unclassified	-.583 (.960)	-.462 (.957)	-.455 (.957)	-.492 (.957)
Primary or less	-1.817 (.780)*	-1.887 (.777)*	-1.911 (.778)*	-1.961 (.783)*
Lower secondary	-1.288 (.661)*	-1.184 (.660)*	-1.202 (.660)*	-1.221 (.662)*
Upper secondary	.045 (.587)	.105 (.585)	.085 (.586)	.062 (.587)
Unclassified	-2.063 (1.037)^	-2.073 (1.033)*	-2.106 (1.034)*	-2.120 (1.036)*
Full HH employment	.161 (.438)	.188 (.437)	.185 (.437)	.145 (.438)
Single parent family	.168 (.818)	-.238 (.815)	-.226 (.815)	.148 (.817)
High deprivation	-.536 (.655)	-.476 (.652)	-.468 (.652)	.508 (.654)
Moderate deprivation	-1.173 (.603)^	-1.029 (.601)^	-1.033 (.601)^	-1.062 (.601)^
Completed LCVP	.210 (.560)	.259 (.558)	.232 (.560)	.174 (.604)
Truant in 6th year	-1.071 (.423)*	-1.034 (.422)*	-1.068 (.426)*	-1.091 (.424)*
Grinds in 6th year	2.004 (.453)*	1.963 (.451)*	1.957 (.451)*	1.946 (.452)*
Completed TY		1.468 (.459)*	1.461 (.460)*	1.303 (.630)*
PTH 6th year			.247 (.441)	
No work experience				-.844 (.532)
SCHWK only				-.399 (.830)
Both PTJ + SCHWK				-.210 (.732)
Community comp	-1.706 (1.026)	-1.537 (1.020)	-1.523 (1.020)	-1.555 (1.022)
Vocational	-1.975 (.832)*	-1.863 (.827)*	-1.858 (.827)*	-1.854 (.829)*
Mixed	.069 (.771)	.180 (.766)	.159 (.767)	.143 (.767)
School mean SES	.659 (.489)	.524 (.488)	.540 (.489)	.536 (.488)
Between school variance	7.449 (1.662)	7.273 (1.636)	7.276 (1.636)	7.3081 (1.638)
Within school variance	47.881 (2.103)	47.544 (2.088)	47.529 (2.087)	47.419 (2.083)

Reference categories: male, professional class backgrounds, parents with tertiary or higher levels of education, living in household exposed to parental unemployment, both parents present, low deprivation area, completed the established Leaving Certificate, secondary school, single-sex school, no differentiated curriculum at senior cycle. *Indicates coeff/se >2.

Model 6 of Table 7.16 then considers the actual programme pursued by the student at senior cycle, the coefficient does not reach significance, suggesting little difference in examination performance between LCVP and established LC students once individual and school characteristics are accounted for. Model 7 of Table 7.16 takes into account student behaviour in 6th year. Students who were ever truant in 6th year achieved lower results in their Leaving Certificate examination than those who were never truant, this model also indicates that students who ever received grinds or extra tutorials in subjects (paid for by parents) achieved higher results in the examination. The effect of local area deprivation is no longer significant.

Model 8 considers participation in Transition Year, and as expected, students who participated in and completed Transition Year achieved higher results in the examination than those who did not.

Finally, Models 9 and 10 now take into account previous part time job holding in 6th year and work experience undertaken in senior cycle. When individual and school level variables are considered, it would seem that having a part time job in 6th year does not affect performance in the Leaving Certificate examination, furthermore, Model 10 indicates that there is no effect from any type of work experience under taken in senior cycle on performance in the Leaving Certificate examination.

It should be noted that a number of other models were considered but are not shown here. Before Model 9 was conducted, a model was run replicating Model 8 but with part time job status in each of the years of second level education included in the model. However, the coefficients did not reach significance for any of the measures of part time job holding, suggesting that the effect of part time job holding in second level education is not dynamic.

7.5.3 Participation in Education Upon Leaving Second Level Education

The final set of empirical analyses in this chapter considers if having an early work experience before leaving second level education is associated with the number of months spent in education upon leaving second level education.

Descriptive Analysis of Time Spent in Education

The dependent variable is the number of months spent in education since July 2001 and is derived from the monthly activity data from the SLS03. That is, it considers the number of months spent in education after leaving school (July 2001) until the school leaver filled in the survey. The definition is wide-ranging and includes vocational preparation, secretarial studies and post leaving certificate participation, all provided in a second level schools, participation in state sponsored programmes and full time or part time education or training at a college or institution. The expectation is that time spent in education upon leaving second level education is conditioned by the qualifications that young people have before leaving school. That is, I hypothesise that entry into further education will be dependent more on the level of education acquired during second level, rather than early work experiences. All school leavers are considered in this analysis.

The results presented below in Table 7.17 outline that 48% of school leavers had engaged in at least one month of further education since leaving school. Among these one fifth spent between 1 and 6 months, just over a quarter spent 6-12 months and just over half spent 13 or more months in education after leaving school. In all, almost half of the sample of school leavers spent time in education over the period in question – education in this context comprising of FAS courses, private training and full time or part time student activities. Those who completed the established Leaving Certificate and completed the LCVP had the highest proportion of school leavers who spent time in education, but participation levels among LCA students resembled that of senior cycle drop-outs rather than school leavers who had completed the LCVP or the LC. This is of interest given that while LCA students do not have a progression route to third level education, there is a pathway to third level

education via one-year Post Leaving Certificate courses (PLC) and state sponsored training programmes.

Table 7.17: Distribution of time spent in further educational pursuits, by educational qualifications and early work experiences

	Per cent that spent time in Education	1-6 months	6-12 months	13+ months
All school leavers	**48.2**			
Of which ...		20.2	27.0	52.9
Stage Left Second Level Education				
Left before completing JC	40.0	35.9	27.2	36.9
Dropped out having completed JC	**19.8**	38.2	20.6	41.2
Dropped out during senior cycle	29.2	40.0	18.7	41.3
Completed Leaving Certificate	66.4	12.5	27.6	**59.9**
Completed LCVP	58.7	18.3	27.5	**54.2**
Completed LCA	32.0	35.1	35.1	29.8
Early work experience				
PTJ & SCHWK	56.7	20.6	26.6	**52.8**
SCHWK	56.1	18.6	17.8	**63.3**
PTJ	**42.7**	20.4	32.2	47.4
None	**45.6**	20.3	26.3	**53.4**

It is also evident from Table 7.17 that a higher proportion of school leavers with experience of both part time jobs and school organised work experiences and those with experience of school organised work experience only had spent time in education, which is most likely to due to the 'Transition Year' effect, meaning that students who participate in Transition Year (and so obtain a period of school organised work experience) are more likely to have higher performance attainment in the Leaving Certificate and are more likely to progress to third level education (Smyth, Byrne and Hannan 2004). Among school leavers who participated in education over an extended period of time (13 or more months), Leaving Certificate and LCVP students were most prominent. In terms of early work experiences, a lower proportion of students who had experience of part time jobs only spent intensive periods of time in education relative to others.

Table 7.18 presents the results from an ordinal regression model[82]. The dependent variable is defined as ordered categories of the amount of time spent in post school

[82] This model is presented as a variance components model and was produced in STATA as there were problems running the model in MLWin even with the baseline model.

education. A positive coefficient increases the chances that the student will be observed in a higher category (which relates to more time spent in post school education), while a negative coefficient increase the chances that the school leaver will be observed in a lower category, representing less time spent in post school education. We find that males are more likely to spend less time in post school education relative to females, those who left school upon completion of the Junior Certificate examination or during senior cycle or upon completion of the Leaving Certificate Applied are more likely to spend less time in post school education relative to those who left school without any qualifications. This may seem counter-intuitive, but it is likely that those who left school without any qualifications are encouraged to engage in education again through YouthReach or other initiatives. On the other hand, the regression coefficient for those who completed the established Leaving Certificate is positive and significant indicating that these school leavers are more likely to spend more time in post-school education than those who left school without any qualifications. Model 1 also indicates that school leavers whose parents have upper second level or a higher level of education are more likely to spend a longer period of time in post school education than those with lower levels of education. Model 2 adds school level characteristics. We now see that the effect of the level of initial education persists and that males continue to be more likely to spend less time in post school education relative to females. The effect of parental education also persists. In relation to school level characteristics, we now see that school leavers who attended community/comprehensive or vocational schools are likely to spend shorter periods of time in post school education relative to those who attended secondary schools. When early work experiences acquired before leaving school are entered into Model 3 of Table 7.18, the effect of gender, stage left second level education, parental education levels, and school type attended persist and we now see some interesting findings in relation to school leavers who had experience of a part time job only. School leavers who had experience of part time jobs only while in school were likely to be observed in a lower category, representing less time spent in post school education. Participation in education relative to other economic status positions will be examined the following chapter.

Table 7.18: Ordinal regression model of time spent in education after leaving second level education

	Model 1 Individual variables	Model 2 Individual and school level	Model 3 Early work experience
Cutpoints & Thresholds			
Threshold 1 (none)	-.235 (.242)	-.125 (.473)	-.092 (.470)
Threshold 2 (1-6 months)	.510 (.242)	.642 (.471)	.679 (.468)
Threshold 3 (7-12 months)	1.017 (.243)	1.164 (.472)	1.206 (.470)
Male	-.339 (.110)*	-.305 (.107)*	-.316 (.107)*
Left school complete Junior Cert	-.690 (.151)*	-.738 (.156)*	-.731 (.156)*
Left school in senior cycle	-.750 (.152)*	-.850 (.163)*	-.800 (.187)*
Completed LC (established)	.659 (.150)*	.485 (.157)*	.692 (.184)*
Completed LCVP	.327 (.193)^	.209 (.196)	.317 (.226)
Completed LCA	-.622 (.188)*	-.687 (.206)*	-.659 (.240)*
Lower Professional	-.218 (.183)	-.150 (.181)	-.151 (.184)
Non Manual	-.231 (.161)	-.057 (.170)	-.049 (.171)
Skilled Manual	-.300 (.189)	-.128 (.192)	-.099 (.193)
Semi Skilled Manual	-.286 (.196)	-.136 (.199)	-.120 (.199)
Unclassified	-.082 (.212)	.011 (.214)	.016 (.219)
Junior Certificate	-.070 (.119)	-.077 (.124)	-.081 (.124)
Leaving Certificate	.358 (.114)*	.271 (.118)*	.252 (.121)*
Diploma or Higher	1.080 (.138)*	.954 (.137)*	.912 (.140)*
Unclassified	.176 (.177)	.264 (.183)	.276 (.187)
Exposed to Unemployment	.100 (.097)	.112 (.096)	.129 (.094)
Single Parent Family	.173 (.144)	.175 (.148)	.141 (.152)
High Deprivation	.018 (.140)	-.071 (.144)	-.042 (.142)
Moderate Deprivation	.061 (.123)	-.029 (.116)	-.004 (.113)
Community/Comprehensive		-.724 (.164)*	-.699 (.164)*
Vocational School		-.779 (.161)*	-.765 (.160)*
Mixed School		.158 (.138)	.186 (.137)
Socio-mix of the school		.179 (.101)	.168 (.102)
Curricular mix at senior cycle		-.062 (.137)	-.050 (.139)
School Organised work experience			.138 (.175)
Part time job holding			-.490 (.125)*
Both part time job & school organised work experience			-.008 (.148)
Chi^2	**307.17*** **	**389.79*** **	**464.74*** **
N	**2304**	**2304**	**2304**

*Indicates coeff/se >2.

Reference categories: female, left school without any qualifications, higher professional background, parents with primary or lower level of education, living in household with full parental employment, both parents present, low deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle, no work experience.

7.6 Summary and Conclusions

This chapter has been concerned with the relationship between early work experiences and educational outcomes – in relation to both educational outcomes during second level education and participation in post school education. The primary aim of the chapter has been to examine the relationship between early work experiences and education outcomes. In doing so, four educational outcomes or dependent variables were considered; (1) retention and progression in second level education, (2) curricular track being pursued at senior cycle (3) examination performance and (4) time spent in education in the 20 months since leaving second level education.

This chapter has served several objectives that have been neglected in prior research. Firstly, by considering school organised work experiences, this chapter has offered a better understanding of how different types of early work experiences undertaken before leaving school are related to educational outcomes. It has also attempted to advance current empirical and theoretical knowledge pertaining to the influence of early work experiences by asking about the extent to which having a school organised work experience can be extended to or generalised to the influence of term time job holding. This chapter considers whether differences in educational outcomes exist according to the types of early work experiences undertaken by school leavers before leaving school – that is, part time jobs and school organised work experiences. Secondly, it takes into account the work histories that school leavers have acquired before leaving second level education rather than the number of hours worked in the most recent part time job held. Finally, the analyses on educational performance in State examinations takes account of the different pathways that school leavers had pursued at senior cycle (i.e. Drop out, the established Leaving Certificate, the Leaving Certificate Applied or the Leaving Certificate Vocational Programme) and whether school leavers completed a five or six year cycle – that is, whether school leavers had participated in Transition Year before sitting the Leaving Certificate examination. The following sections provide a summary and discussion of the findings from this chapter.

Retention and Progression

The empirical analyses on retention and progression in second level education addressed previous research findings from the Irish contexts which suggest that even after controlling for differences in the individual characteristics of school leavers that school leavers who have part time jobs in 1st year are significantly more likely to drop out of school before sitting the Junior Certificate examination than those who did not hold a job in 1st year, and that school leavers who have a part time job in 3rd year are significantly more likely to drop out of school before completing senior cycle (McCoy and Smyth 2004). The purpose of the analysis was to extend this research examining the effect of part time job holding in 1st year on educational progression by applying multilevel techniques and taking into account additional individual characteristics and school level characteristics, but also by applying a technique from the treatment evaluation literature. That is, previous research in the Irish context has analysed the issue using regression methods but to date no attempt has been made to consider the findings in a multilevel framework or in a treatment evaluation methodology. Studies often attempt to isolate the independent effect of treatment using regression methods to control for observable differences between the treated and control observations. Using ordinal regression methods, school leaver's educational transitions through second level education were modelled. The empirical analyses began by considering the determinants of having a part time job in 1st year and the determinants of educational progression separately. The ordinal regression model demonstrated that educational progression for students in our sample varies substantially across schools. When individual and school characteristics are taken into account, for any progression level, school leavers who had a part time job in 1st year were less likely to progress through second level education than those who did not. It was then stated that this method may still lead to biased estimates and that there may not be a 'causal' effect of part time job holding in 1st year. That is, it was discussed that part time job holding in 1st year may be correlated with the error in the population because part time job holding is correlated with other causes of educational progression that are implicitly embedded in the error term. Table 7.3 empirically demonstrated that students are not randomly assigned to part time job

holding in 1st year[83]. Furthermore, it may be that students who had a part time job in 1st year would be more likely *not to progress* through second level even in the absence of part time job holding, based on unobserved characteristics. For example, we do not know whether working in 1st year negatively affects educational attainment directly or advocates school disengagement, or whether young people make the decision to work because they intend on leaving school to enter the labour market. If this is true, part time job holding in 1st year and the population level error term *e* are correlated because those who have a part time job in 1st year are more likely to have high values rather than low values on the error term. Difficulty in determining the true impact or influence of part time job holding early in junior cycle has on drop out arises largely because the decision to drop out is endogenous (Steinberg, Fegley and Dornbusch 1993; Bachman and Schulenberg 1993; Schoenhals Tienda and Schneider 1998; Warren 2000; Dustmann, Rajah and VanSoest 1996). A propensity score model was then conducted to match treatment (had a part time job in 1st year) and control (no part time job in 1st year) observations that are similar in observed characteristics which then produces unbiased estimates of the effect of treatment on the outcome of interest (Rosenbaum and Rubin 1983, 1984). That is, the propensity score matching technique was used to take account of possible selection bias based on unobserved variables. This method matches treatment and control observations that are similar in terms of observed characteristics, and thereby produces unbiased estimates of the effect of the treatment (part time job holding) on the outcome of interest (educational progression) using the psmatch2 procedure in STATA[84]. The results indicated that once matching techniques were used, very little possible selection bias was evident suggesting that our conclusions regarding the effect of part time job holding in 1st year on educational progression are robust. Confirmatory analyses were conducted using multilevel binary and multinomial logistic regression methods to confirm the results

[83] If part time job holding was randomly assigned, the treatment variable would be uncorrelated with the error term even though there may be a chance that correlation between D and e in any finite set of study subjects.

[84] Matching methods match treatment and control observations on the basis of observable characteristics only, i.e., it is assumed that there are no unobservable differences in characteristics between treatment and control observations.

from the ordinal regression, producing similar findings (see Tables A10-A12 in Appendix).

Part time employment and progression into curricular tracks

Section 7.2 outlined findings from the international literature which suggests that having a part time job while at school has a differential effect on academic and vocational students (Payne 2001; 2002; Stern et al., 1997). To date Irish research has indicated that Leaving Certificate Applied and Leaving Certificate Vocational students have higher levels of part time job holding than those pursuing the established Leaving Certificate. The purpose of the analysis was to extend this research to consider the effect of part time job holding in junior cycle on participation in different tracks at senior cycle by applying multilevel techniques and taking into account additional individual characteristics and school level characteristics. The analysis relating to the influence of part time job holding in junior cycle in channelling young people into different curricular tracks has led to some very interesting results. These analyses suggest that among students who complete second level education, students who had a part time job in 1st year are more likely to drop out in senior cycle (as expected based on findings from the previous section) or complete the Leaving Certificate Applied than complete the established Leaving Certificate. Matching techniques have not been applied to these analyses, so while the findings suggest that among those who enter senior cycle, young people who have a part time job in 1st year are more likely to either drop out of senior cycle or end up pursuing the Leaving Certificate Applied, we cannot be sure that this is a causal effect. As before, difficulty in determining the true impact or influence of part time job holding early in junior cycle has on drop out arises largely because the decision to drop out is endogenous. That is, this standard multinomial model may fail to disentangle part time job holding in 1st year/3rd year effects from pre-existing differences among students. Ideally, the data would contain measures of ability or educational aspirations. Based on the analysis conducted above, a matching technique may reveal that little bias is present, indicating that there are only very small differences between students who have a part time job in 1st year and those who do not. If this is the case, a tracked system may reinforce these differences.

Further attention was paid to retention and progression through second level education focused on retention within curricular tracks. Drop out rates within curricular tracks were highest among Leaving Certificate Applied students and lowest among those pursuing Leaving Certificate Vocational Programme. It would seem that Leaving Certificate Applied school organised work experience may play a part in helping young people to stay at school, that is, school leavers who had experience of a Leaving Certificate Applied school organised work experience were less likely to drop out than those who did not.

Furthermore, this chapter considers whether differences retention exist according to the types of early work experiences undertaken by school leavers before leaving school using the typology of early work experience. Because school organised work experiences are an actual component of the second level curriculum (see summary provided in Table 6.1 in the previous chapter), the general aim is to infer whether school organised work experience can 'make up' for the negative effects of part time job holding, particularly in terms of retention and examination performance. Table 7.12 considered the probability of dropping out of school among all senior cycle leavers. Again, it is important to note that only students who made the transition from junior cycle to senior cycle are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample. Individual and school level characteristics were considered in relation to the probability of dropping out and as before, males, those pursuing the Leaving Certificate Applied, those attending community comprehensive and vocational schools were all more likely to drop out than complete senior cycle. Students whose parents had higher levels of education, and those pursuing the Leaving Certificate Vocational programme were less likely to drop out. When the different types of work experience undertaken in senior cycle were accounted for, we saw that the conclusions generally remained the same in relation to the findings reported above. However, we now see that students who had a part time jobs only are significantly less likely to drop out than those who had no work experience in senior cycle. The addition of work experience in Model 5 of Table 7.12 means that the coefficient for the variable *diploma or higher* has increased indicating that the effect has become stronger. Furthermore, we now see that the coefficient for pursuing the

Leaving Certificate Vocational has increased and the coefficient for pursuing the Leaving Certificate Applied has decreased, thus suggesting that the introduction of work experience enhances the effect of pursuing the Leaving Certificate Vocational while it reduces the effect of pursuing the Leaving Certificate Applied.

Examination Performance

In the second set of analyses, the association between early work experience and performance in the Leaving Certificate examination was considered. Based on previous studies in the Irish context, the expectation was that students who had a part time job in 6th year would fare less well in the examination than those who did not. Furthermore, we expected that Leaving Certificate Vocational students would fare less well in the examination than established Leaving Certificate students. The multilevel OLS regressions indicated that parental education, measure of local area deprivation, behaviour in the final year of school in relation to truancy and extra tuition and school type attended are key determinants of examination performance. Contrary to our expectation, student examination performance did not vary according to early work experience through part time job holding in second level education or through collective work experiences acquired during senior cycle. These findings, particularly in relation to part time job holding are contrary to some of those in the literature. For example, Smyth and McCoy (2007) report that students who work in their Leaving Certificate year differ from non-working students in both their Junior Certificate performance and their Leaving Certificate performance. That is, when a measure of previous educational performance is included in the model, students who have a part time job in 6th year – the final year of schooling – fare less well than those who do not work in that year. Furthermore, when individual and school characteristics were accounted for, differences in grade point average were not evident according to the programme that the student pursued.

Participation in Further Education

The final empirical analysis relating to examination performance was carried out in relation to all combinations of early work experiences acquired in senior cycle, and demonstrated that school leavers who had experience of both part time jobs and

school organised work experiences, and those who had experience of school organised work experience only were more likely to achieve higher examination performance. However, when socio-economic variables were added to the model, the effect of early work experience was no longer evident, thus displaying a selection effect in terms of who works. Finally, analyses were undertaken to consider whether participation in early work experiences are related to participation in further education upon leaving school. Again the results showed a differential effect of part time job holding on participation in further education upon leaving school. On the one hand, school leavers who had experience of a part time job only were more likely to not to attend education than spend an intensive amount of time in education than those without any work experience. On the other hand, school leavers who had experience of a part time job only were more likely to spend a moderate amount of time in education upon leaving school (7-12months) than an intensive amount of time in education than those who had no work experience at all. The former pattern was also evident among those who completed the Leaving Certificate Applied and those who dropped out of school, thus suggesting that these young people face the greatest challenge in participation in the education system upon completion of school.

Chapter 8: Early Work Experiences and Early Labour Market Outcomes

> 'Opportunities for youth employment can be found in the skills-intensive economy. However, many young people are marginalized because they lack the skills required by the growth sectors of the economy. A key element to providing them with quality jobs is to develop the aptitudes, personal skills and **work experience** required for an increasingly flexible and changing labour market' (United Nations Youth Employment Policy Network: 12).

8.1 Introduction

Chapter 8 now marks the final empirical chapter of this dissertation. Chapter 5 introduced the different types of early work experiences that young people engage in before leaving school. Chapter 6 asked who works, when do they work and what type of work, and considered the determinants of having an early work experience. Chapter 7 offered an insight into relationship between early work experiences and educational performance. The present chapter now explores the relationship between early work experience(s) and labour market outcomes of school leavers up to 20 months after leaving school.

This chapter is outlined as follows. Section 8.2 states the research questions that this chapter seeks to address. Section 8.3 offers an overview of changes in labour market patterns in the Republic of Ireland. Section 8.4 consults the empirical literature and outlines the factors associated with early labour market outcomes, paying particular attention to agency, resources and the wider institutional structure. Section 8.5 outlines the data and variables and the analytic strategy used. Section 8.6 presents the findings that are presented in three sub-sections. Section 8.6.1 illustrates the pattern of economic activities of all school leavers from July 2001 to February 2003. It also provides a descriptive analysis of school leavers' time use in these 20 months after leaving school using survival analyses. Section 8.6.2 provides a snap-shot of school leavers at the time of the survey and examines the determinants of their economic situation at the time of the survey. The final empirical section, section 8.6.3 considers labour market entrants job search strategies and conditions of employment. Finally, Section 8.7 offers a conclusion and discussion of findings from this chapter.

8.2: Research Questions

While the primary aim of this chapter is to examine the influence of early work experiences on early labour market outcomes and whether the acquisition of early work experience plays a favourable role among entrants to the labour market, the main research questions this chapter seeks to address are concerned with time spent in employment in the 20 months after leaving school, time spent in unemployment in the 20 months after leaving school, labour market entry, job search processes and conditions of employment.

The first set of research questions address the number of months spent in employment since leaving school. The specific research questions asked are;

- Are early work experiences likely to contribute to a lower risk of unemployment in the months after leaving school? Is this the case for all early work experiences?
- To what extent is time spent in employment influenced by early work experiences undertaken before leaving school, even when controlling for differences in education levels completed in second level and other individual level characteristics?

The second set of research questions address the principal economic status of school leavers at the time of the survey. The specific research questions are:

- What is the influence of early work experiences on the primary economic status of school leavers at the time of the survey?

The third set of research questions address the ways in which employment was obtained, the nature of employment carried out, the segment in which the occupation is located in the labour market and the conditions of employment. The specific research questions are;

- What is the influence of early work experiences on the job search strategies of school leavers?
- What is the influence of early work experiences on the conditions of labour market entry among school leavers?

Before a consideration of the existing literature concerning these research questions, the following section provides an overview of changes in labour market patterns in the Republic of Ireland.

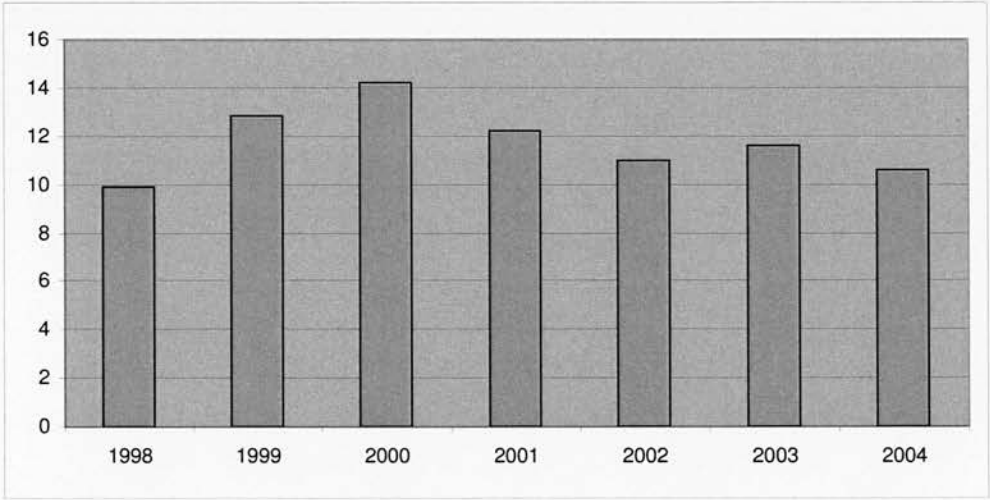
8.3 Changes in Labour Market Patterns in the Republic of Ireland

Chapter 4 recognised that because of the paucity of data on the 'double status' of young people in the Republic of Ireland, long-term trends in part time job holding among young people attending second level education is not attainable. In this context, the following section considers changes in labour market patterns which may have provided the conditions which give students the opportunity to combine part time job holding with their education. Much attention has been paid to recent Irish labour market developments which provide an important context for this study. In the past two decades, Ireland has witnessed an overall increase in the numbers participating in temporary and part-time employment, as there has been an overall flexibilisation of the labour market, that is, the number of temporary and part-time jobs in Ireland has grown substantially since the mid 1980's. The proportion of part-time workers in employment in Ireland rose from 5 per cent in 1983 to over 10 per cent in 1995 or in absolute terms from 56,000 to 124,000 (O'Connell and McGinnity, 1997). Over this time, part time employment has generally been associated with women. In 1995, women accounted for 72 per cent of all part-time workers. It has been well documented that a large cohort of women in Ireland began entering part-time jobs in the 1980's and 1990's. Similarly, according to OECD estimates, the incidence of part time employment grew from 4.2 to 7.1 per cent between 1990 and 2001 for men and 20.5 and 33 per cent for women (OECD 2002). A substantial part of the growth in part time jobs and the increased level of labour market participation has been attributed to the increased flexibility of the labour market. The expansion of temporary employment seems to reflect in part, individual as well as employer demand for flexibility in working practices (OECD, 2002). Temporary employment has grown steadily between 1985 and 1995, but with a decrease in levels in Ireland over the period 1995/2000.

Levels of temporary employment continue to be higher among women than men in Ireland and levels are higher among those aged 15-24. It is evident then that

temporary work is more common among the younger cohort, and studies have consistently reported an increase in student labour market participation (McCoy and Smyth 2004; McCoy, Duffy and Smyth 2000; Fitzgerald, 2000; HEA, 2000). To date, studies of labour market flexibilisation in Ireland have concentrated on the increased labour market participation of women. This thesis has been concerned with another group of flexible workers, namely students, for two reasons. Firstly, to date, little is known about students' labour market participation in Ireland. Due to the marginal nature of the jobs that students are perceived to participate in, little attention has been given to them, despite the fact that there is also evidence of an increase in marginal jobs. Secondly, there is the argument that students are competing with lower educated workers for the same low qualified jobs (Canny, 2002). This has serious consequences for those facing marginalisation. While atypical forms of employment have become much more common in Ireland: over one third of the net addition to employment between 1993 and 2001 consisted of part-time jobs (Expert Group on Future Skills Needs, 2002), to date much less attention has been paid to levels of labour market participation among second level students and those in post compulsory education. Figure 8.1 illustrates that approximately 12 per cent of young people aged 15-19 were in double status positions between 2001 and 2003 – that is, in education and in employment, at the time this study was conducted.

Figure 8.1: Bar Chart displaying the percentage of 15-19 year olds in 'double status' positions in the Republic of Ireland 1998-2004



Source: QHNS 15-19, 15-19 Year olds in education, in employment part time

8.4 An overview of the literature on early labour market outcomes

Studies of the labour market outcomes of Irish school leavers have indicated that the initial period of labour market entry can be one of substantial employment difficulty – in terms of time to first job, the quality of that job and subsequent career mobility (Breen 1986; Hannan et al. 2003). Earlier research indicates that there is a high correlation between educational achievement and outcomes in the Irish labour market in terms of access to employment (Hannan et al. 1993), occupational destination (Smyth and Surridge 1996) and earnings (Breen et al. 1995). These findings seem to hold irrespective of economic boom or bust – that is, young people with the lowest levels of qualifications generally find it more difficult to obtain an initial job upon leaving school; and the occupations they enter tend to be relatively insecure, leaving these school leavers at a higher risk of subsequent unemployment. In fact, educational qualifications are often considered to be the main *resource* of labour market entrants (Breen et al., 1995; Müller and Shavit 1998) with much less attention being paid to early work experiences before leaving school. In addition to the short-term consequences, the importance of labour market position immediately upon leaving school for long-term socio-economic outcomes has also been emphasised in the literature. That is, the effect of initial and post-school education and training on early labour market outcomes indicates that initial education (second level education) has a strong initial and persistent effect on initial labour market outcomes;

> *'Initial educational achievements have pronounced effects on initial occupational achievement levels and on time to first job. Having a Leaving Certificate substantially decreases time to first job and increases the occupational status of first job achieved. Grades achieved in either the Junior Certificate or Leaving Certificate examinations also increase occupational status initially achieved – however, they have no independent effect on time taken to get first job'* (Hannan 2003: 8).

Social stratification theorists argue that from the point of first job onwards, an individual's location in the class structure is increasingly based on their own work position and less on their parents' class (Müller 2005). Further support for the importance of labour market position immediately upon leaving school for long-term socio-economic outcomes comes from wider sociological debates. 'Precarious' labour market entry is often believed to have potential negative repercussions in

terms of increased psychological distress, delayed family formation, increased criminality and a general lack of social integration (Korpi et al. 2003). While these long term perspectives are important, the data cannot be used to explain long term effects but it can be used to explain the influence of early work experiences on the initial or early labour market outcomes, that is, up to twenty months after leaving school.

More recently Irish empirical studies have been less interested in employers' recruitment strategies than in the past (see Breen 1986; Breen Hannan and O'Leary 1995 in the Irish context and Raffe 1987; 2003; Ashton, Maguire and Spilsbury 1990) which is most likely due to unprecedented low unemployment levels. In 1986, Breen Hannan and O'Leary argued that in the Irish context employers place a high value on qualifications and credentials for recruitment decisions but that horizontal differentiation is of little importance in job acquisition because Ireland lacks a close link between specific educational tracks and specific occupations. Later, Muller and Shavit (1998) argued that vocational type education would offer less benefit in accessing skilled employment because of the context in which this type of education is placed, leading to theories of job queue. What is of particular interest to this dissertation is that while hypotheses have been derived, the empirical consideration of the effects of horizontal differentiation has generally been neglected in the literature, as has the issue of the potential of having different types of early work experience before leaving school in providing greater access to the labour market after leaving school.

There are some studies that point to the labour market effects of *institutionally supported* work experience; that is work experience provided by the state through labour market interventions (see for example Breen 1988) and others relating to active labour market programmes (see for example O'Connell and McGinnity 1997; O'Connell 2002). O'Connell finds that active labour market programmes (ALMPS) with strong linkages to the labour market are more likely to improve the job prospects of participants than those characterised by weak market linkages. Richard Breen's assessment of the work experience programme in Ireland, a labour market

programme aimed at alleviating the effects of unprecedented high levels of unemployment from 1978-1987[65] (Breen 1988), found that while the programme guidelines stipulated that participants were not to be used to fill 'normally arising vacancies' there was some reason to believe that employers were using the programme as a means of screening workers. Because of the lack of knowledge pertaining to school organised work experiences, studies have not yet considered whether these processes are in play with regard to school organised work experience at senior cycle.

In a context of curriculum differentiation at upper senior cycle, there are a number of reasons why it is surprising that the issue of the potential outcomes or the value from access to the world of work via the curriculum, and indeed the 'vocationalisation' of education at upper senior cycle, in easing the transition from school to work has not attracted more research attention[66] in the Irish context. Firstly, educational programmes that offer school organised work experience are at the core of curriculum differentiation at upper senior cycle, and a key feature of ongoing senior cycle reform considerations (NCCA 2003a; 2003b; 2004). Secondly, labour market interventions seem to have gained considerable research interest, from their inception and more recently, more than educational interventions. However, educational policy encourages differentiation at senior cycle despite the absence of hard empirical evidence that participation in these programmes is correlated with favourable outcomes. Thirdly, the dearth of research on the specific Irish context of school organised work experiences is also surprising given the amount of research dedicated to labour market outcomes from (pre) vocational education, careers services and work experiences in other institutional contexts such as America, which includes comparisons with American and Japan (see for example Rosenbaum and Alter Jones 2000; Rosenbaum et al. 1999; Rosenbaum and Kariya 1989; Rosenbaum et al. 1990;

[65] The programme was a labour market intervention rather than an educational intervention. The Work Experience Programme (WEP) aimed to provide unemployed young people with 26 weeks of work experience on an employer's premises and arose out of the 'catch 22' situation in that young people cannot get work unless they have work experience. It also came from the motivation that young people who cannot find a first job often lack knowledge of the labour market and lack marketable skills.

[66] With some exceptions, see for example Boland and McNamara 1994; Gleeson and Granville 1996; Smyth et al 2004.

Rosenbaum et al. 1999; Stern 1984; Stern et al. 1997; Stern et al. 1990a; Stern et al. 1998; Stern et al. 1990b; Stern 1994), Australia (Fullarton 2001; Fullarton 1999) and the UK (Howieson and Croxford 1996; Howieson and Semple 2006; Howieson 1990; Howieson et al. 1997). Understanding the effects of early work experiences on early labour market outcomes presupposes theoretical models explaining in general terms why early work experiences should affect labour market outcomes. This is what the next section sets out to achieve.

While empirical research on the labour market outcomes of school organised work experience has been thin on the ground in the Irish context, studies have been somewhat more successful in exploring the labour market outcomes of school leavers who held part time jobs (McCoy and Smyth 2004a; 2004b; Stack et al. 1998; Stack 2001). These studies generally conclude that having experience of part time job holding can ease the transition from school to work, however the mechanisms behind the processes of part time job holding to ease the transition remain largely uncovered, that is, it has been much less theorised as to why part time job experiences should affect labour market outcomes. McCoy and Smyth (2004, 2007) examined the relationship between term time job holding and employment probabilities, unemployment probabilities and occupational destinations. They found that part time job holding in second level education was associated with a lower probability of pursuing further study and a greater probability of entering the labour market upon leaving school (even when controlling for background and educational characteristics). Young men were found to have lower unemployment levels than young women, and unemployment levels were lower across all levels of employment intensity with the greatest advantage in terms of avoiding unemployment accruing to those who worked 16-20 hours per week. Occupational destinations were also examined and when controlling for social class background and educational qualification achieved, those who had worked in a part time job were more likely to enter service or clerical jobs than non workers, indicating that part time job holding could generally facilitate access to white collar occupations. They concluded that experience of work before leaving school (in the form part time jobs) can smooth the

transition into full time employment, but did not offer an explanation about the mechanisms by which this 'smoothing' occurs.

The international literature outlines the difficulties in estimating the effect of part time job holding by youth. While the findings of international studies of part time employment and educational outcomes are mixed (see previous chapter) the results pertaining to employment outcomes are more clear cut (Rhum 1997). There is considerable evidence to suggest that work during school is associated with elevated rates of future job holding and increased earnings (Stevenson 1978; Stephenson 1981; Marsh 1991; Rhum 1997; Hotz et al., 2003; Light 1999, 2001; Michael and Tuma 1984). This is an important finding given that part time job holding before leaving school has largely been omitted from empirical analyses of earning equations that have their roots in the theory of human capital[67] (for example see Rosen 1977; Mincer 1974 and Becker 1964).

However, the relationship between student employment and future outcomes could result from unobserved confounding factors rather than being due to any causal effect of the work itself. The relationship between part time job holding and favourable economic outcomes may be spurious. Estimated effects may reflect the persistent role of unobserved or hard to measure differences in initial skills, ability and/or familial connections that influence both the likelihood that youth acquire early work experience and the degree of labour market success later in life (Hotz et al., 1999; Meyer and Wise 1982). As outlined in previous chapters, part time job holding is often treated as exogenous in the literature, ignoring the selection process determining which youths work and the effect this may have on outcomes. Meyer and Wise (1982) note:

---

[67] Light (1999) has argued that conventional earnings functions do not control for work experience undertaken while still at school, meaning that the estimates of the return to schooling include the benefit of work experience gained along the way. Using NLSY data, she found that the estimated coefficients of wage models without controls for part time job holding are 25-44% than when part time job holding is controlled for, concluding that conventional models 'overstate' or exaggerate the wage effects of part time employment. The implication is that traditional models of human capital that are consistent with those of Ben Porath (1967) which assume that 'learning' is the only skill enhancing activity to take place during the school phase of the life cycle actually capture the skill-enhancing effects of extra-curricular activities. Therefore, Light suggests that we should interpret the effect as the wage benefit of skills gained in the classroom plus skills gained concurrently via on-the-job training or other work undertaken.

> *Working in high school may be an indication of personal characteristics not gained through work, but associated with work in high school as well as greater labour force participation following graduation. It is not that the demand is greater for persons who work in high school, but that these persons have a greater propensity to work* (Meyer and Wise, 1982: 306).

Rhum (1997) uses a number of approaches to account for differences between workers and non-workers and concludes that there is no detrimental effect of low to moderate amounts of student employment. In fact, he concludes that part time job holding results in favourable outcomes. In order to address selectivity bias, he introduces a broader set of covariates than have typically been available to previous researchers. Econometric techniques are then used to determine the nature of any selectivity bias. Another approach used is to limit the analysis to persons with relatively homogenous future work experiences as this reduces the effects of unobserved heterogeneity. The treatments effect model suggests that reduced-form models are more likely to understate than overestimate the beneficial effect of student job-holding.

8.5 Data, Variables and Analytic Strategy

The influence of early work experiences on labour market outcomes are analysed using the SLS03 as before. The dataset is well suited to investigating labour market outcomes as this information is collected on the principal economic status of school leavers at the time of the survey, as well as monthly information of school leavers' usual situation with regard to employment from June 2001 to Spring 2003. Examining the monthly data of school leavers represents a substantial contribution to analyses of the SLS, as no other study has used this information since 1991 (see Breen 1991). However, a downfall of the monthly data is that participation in apprenticeships is classified as 'working for payment' and so a distinction cannot be made between those in employment and those in apprenticeships[68].

Measurement of Variables and Analytic Strategy

[68] While not ideal, this classification is somewhat satisfactory given that students in apprenticeships earn a salary.

Dependent Variables

The conceptual interest is not just in the dependent variable representing the outcome – such as employed as a state per se, my conceptual interest is in the labour market processes that culminate in someone getting a job and simultaneously in an employer making a hiring decision. Thus, I recast the dependent variables as being ultimately derived from processes of labour market matching in which employers hire workers and job seekers accept positions. This approach previously taken by Bills (2003), Breen (1991) allows me to focus on employers decision making – how employers acquire, evaluate and act on information provided by educational credentials and work experience undertaken before leaving school as the basic causal mechanism that underlies middle range theories of the linkage between schooling and socio-economic outcomes.

Section 8.6.1 deals with the first set of dependent variables which consider factors associated with unemployment in the 20 months after leaving school and transitions out of employment into unemployment. For the purpose of these analyses, school leavers are categorised according to whether they were employed, unemployed, student (including further education and state sponsored training), inactive or unclassified. Two dependent variables are used. A binary dependent variable (1=experienced unemployment, 0=did not experience unemployment) considers the factors associated with experiencing at least one month of unemployment over the period. Because unemployment status is likely to be stratified according to gender (Breen 1991), separate analyses are carried out for males and for females. A limitation of the binary logistic regression model is that it refers to counts of periods of unemployment rather than consecutive periods of unemployment. In order to take account of how the economic position of school leavers changes through the period examined, survival analyses are used to pay particular attention to how the transition process depends on educational qualifications and early work experiences. Survival functions are used to examine

(a) likelihood of moving from employment into any other status position is considered and

(b) the likelihood of moving from employment into unemployment. Therefore, these two further dependent variables are used.

Section 8.6.2 deals with the second set of dependent variables which are concerned with the primary economic status of school leavers at the time of the survey (Spring 2003) and the labour market status among those in the labour market at the time of the survey. The empirical analyses for this section examine

(1) the determinants of the primary economic situation of school leavers at the time of the survey;

(2) the determinants of being in the labour market at the time of the survey.

This section offers a 'snapshot' of school leavers who are in employment at the time of the survey, and examines the role of early work experiences among other factors on the allocation of school leavers to particular economic status positions. The economic status of the school leaver at the time of the survey was identified by questions relating to the school leavers' 'current position' to identify those who are employed, unemployed, in education or training and inactive. It should be noted that the primary economic status position of the school leaver is considered according to this classification and not the 'double status' positions often occupied by youth (for example, see Wolbers 2003).

Finally, section 8.6.3 deals with the third set of dependent variables which are concerned with school leavers' perceptions of their current employment, job search strategies, location in the labour market and conditions of employment among those in employment at the time of the survey. Specifically, this section considers variation in job search methods among those in employment at the time of the survey, location in the labour market in terms of occupational destination, and the conditions of employment in terms of type of employment contract entered into and position in the primary or secondary sectors

Information pertaining to the type of employment entered into was asked to those who were in employment at the time of the survey. The question asked to all respondents was as follows: 'Did you hold a job last week, even for a short time? How would you describe the job? (see question in the survey). A variable was

created with regard to conditions or quality of employment by considering the employment status of the young person (employer, self-employed, employee, assisting a relative (not receiving a fixed salary or wage), the number of hours worked and the contract type (regular full time, regular part-time, temporary part time, temporary full time). As a result, the 'conditions of employment' can be summarised in three categories

(1) marginal part time employment

(2) part time employment and

(3) permanent full time employment.

Finally school leavers in employment were classified according to their job search strategies, comprising four groups

(a) school leavers who used institutional contacts, institutional contacts being FAS, local employment service, school careers guidance service, work experience placement

(b) school leavers who used their own initiative and used advertisements in newspapers, radio, used a private agency or the internet

(c) school leavers who used their own initiative by contacting employers directly and

(d) school leavers who relied on personal contacts.

This classification is based on the question '*How did you hear about your present job (or job you held last week)'*. School leavers were given a list of job search methods and were asked to identify the dominant method used to gain their current employment. It should be noted that previous research on this topic has indicated that survey data on methods of placement are self-reported by the school leavers themselves, and these may not always have coincided with other peoples perceptions of how the jobs were obtained (Raffe 1988). Furthermore, the data report the method of job search used to obtain employment, despite the fact that many different types of job search could be utilised over the course of the job search period. In addition, as Raffe too outlines, the question does not distinguish between the role of each strategy or channel in supplying information about a vacancy or any other active role in helping make employers make recruitment decisions. The response rate suggests that

the majority of school leavers could identify a job search strategy while just 6% failed to respond to the question, despite being in employment at the time. This 6% are omitted from the analyses that follow.

Independent Variables

Individual and socio-economic background

As in the previous chapters, independent variables include gender and a range of socio-economic background variables. These include parental social class, highest level of parental education, household employment situation and family structure (number of parents present). Based on international research, we expect that school leaver's subsequent employment position is also likely to affected by local labour market conditions. While modelling specific labour market attributes is beyond the scope of this dissertation, a measure of the socio-economic status of the region in which young people live is also included.

School level variables

As in the previous chapter, the school type that the school leaver attended before leaving school is used and is presented in the form of two dummy variables variable (vocational, community/comprehensive) with secondary school as the reference category. In addition two other school level variables were identified from the dataset: gender-mix of the school (mixed, single-sex) measured as a binary variable, and average socio-economic mix of the school, which was measured as a continuous variable.

Controls not included in the model

Although the combined data set provides a rich set of individual, socio-economic background, school and local area characteristics, my empirical work does not include a number of intervening measures such as prior ability or a prior educational achievement control, or a measure of educational expectations known to have an influence on uptake of early work experiences. Thus, the goal of the analyses are to

establish which observed characteristics have the strongest association with early work behaviours, but also to recognise that there may be some unobserved characteristics which influence participation in early work experiences, and to discuss the implications of the omission of such variables.

Modelling strategy used

As in previous chapters each of the sections begin by offering a descriptive analysis of the outcome in question. The influence of these factors is examined through multivariate analyses and the modelling strategies used were binary logistic regression, variance components multilevel regression model and ordinal regression. Analyses were also conducted using survival analysis.

8.6. Findings

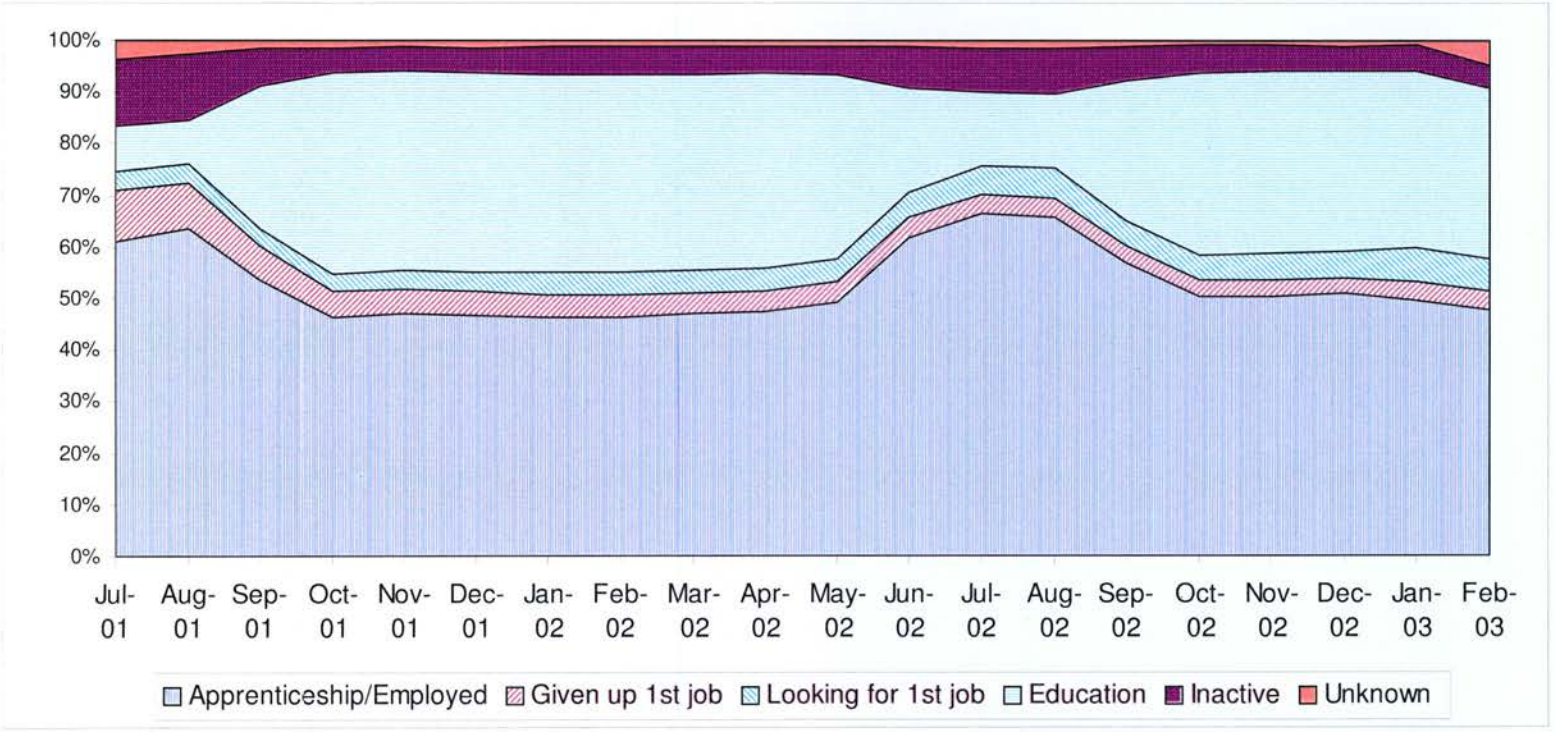
8.6.1 A descriptive analysis of school leavers' patterns of school to work transitions

The pattern of transitions from second level education in the Republic of Ireland

Figure 8.2 illustrates the pattern of primary monthly economic activities of all school leavers from July 2001 to February 2003, using monthly data collected from school leavers. A period of twenty months allows an examination of the post school short-term outcomes of school leavers. Previous follow up studies of school leavers suggest that most school leavers enter the labour market almost immediately, with about 98 per cent entering within two or three years after initial education (Hannan et al., 2003)[69]. Most enter employment within the first year although many remain on in full time education/training (non third level). Using the SLS02, Figure 8.2 illustrates that the majority of the school leaver cohort entered employment (the definition of which also includes apprenticeships) within a short period upon leaving school. Many school leavers become students in third level institutions, and the seasonal nature of student activities is illustrated by an increase in employment activities over the summer period followed by a subsequent decrease in the Autum/Winter timeframe. In terms of unemployment, Figure 8.2 illustrates that the proportion of school leavers in unemployment remains relatively stable over the period, and that similar proportions are unemployed among those who have given up a first job and those who are still looking for a first job since leaving school. What is particularly interesting in this data is that apart from the extremely favourable conditions on offer to school leavers in terms of education and employment opportunities, is that patterns over the twenty month period remain relatively stable. However, the follow up surveys of school leavers suggest a pattern of decreasing proportions in education and training and increasing proportions in employment over time (Hannan et al., 2003).

[69] These findings are based on 3 follow up surveys of Irish school leavers. This data however cannot be used to consider longer term outcomes of school leavers who had a part time job or other work experience before leaving school as the initial surveys and follow up surveys did not ask about part time job holding or participation in school organised work experiences.

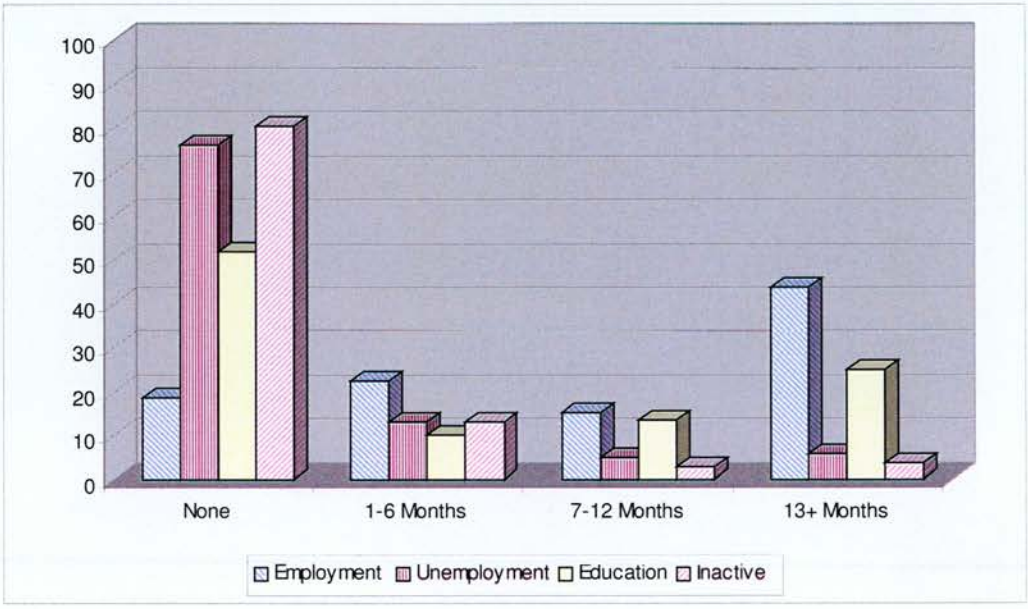
Figure 8.2: Monthly Economic Activity of cohort of school leavers, all school leavers



Time spent in employment, unemployment, education and inactivity

Table 8.1 and Figure 8.3 document and illustrate the distribution of time in the twenty months after leaving school that school leavers spent in employment, unemployment, education and inactivity by the whole sample school leavers between July 2001 and February 2003. It is particularly evident that school leavers are less likely to experience unemployment or inactivity over the period while about half of school leavers did not experience any education or training over this time.

Figure 8.3: Distribution of school leavers according to time spent in employment, unemployment, education, inactivity from July 2001 to February 2003.



As mentioned earlier the definition of unemployment includes incidences when school leavers have given up a previous job as well as those who are still looking for their first job since leaving school. In all, 24 per cent of school leavers experienced at least one month of unemployment over the period in question with a lower proportion of those who completed the Leaving Certificate and the Leaving Certificate Vocational Programme engaging in unemployment than any other school leaving sub-cohort. While the proportion of students who completed the Leaving Certificate Applied and who spent time in unemployment was similar to that of early school leavers, when the length of the unemployment period was considered, those

who had completed the Leaving Certificate Applied had a similar pattern to those who had completed the Leaving Certificate Vocational Programme and the established Leaving Certificate. In terms of early work experiences before leaving school, long periods of unemployment seem to be more common among school leavers who had no work experience at all during second level education (see Table 8.1). Just over one third of school leavers who had not participated in any type of early work experience endured long periods of unemployment, suggesting that either a lack of early work experience opportunities may have an association with long-term unemployment or that school leavers who did not engage in early work experiences had a propensity not to work while in school and not to work upon leaving school as outlined by Meyer and Wise (1982).

Table 8.1: Intensity of time spent in status positions, all school leavers

	Spent time in Employment			**Spent time in Unemployment**			**Spent time Inactive**		
Duration in Months	1-6	7-12	13+	1-6	7-12	13+	1-6	7-12	13+
Proportion of school leavers that experienced…	22.4	15.1	43.9	12.7	4.9	5.8	67.9	13.7	18.4
Left before completing JC	29.1	19.9	51.5	32.5	24.2	43.3	30.2	17.5	52.4
Left having completed JC	14.0	14.6	71.4	39.7	23.7	36.6	53.1	20.4	26.5
Left during senior cycle	13.9	16.1	70.0	59.0	26.5	14.5	53.5	16.3	30.2
Completed established LC	37.9	20.3	41.8	77.9	13.9	8.2	83.6	9.5	6.9
Completed LCVP	30.6	19.6	49.8	79.3	13.8	6.9	80.6	16.1	3.2
Completed LCA	13.6	17.9	68.5	71.2	16.9	11.9	55.6	22.2	22.2
PTJ & SCHWK	27.3	19.8	53.0	83.3	12.5	3.8	78.4	8.1	13.5
SCHWK	31.9	17.3	50.8	61.4	22.8	15.8	73.7	19.3	7.0
PTJ	22.6	18.0	59.4	59.8	22.8	17.3	78.7	14.9	6.4
None	31.9	18.6	49.5	43.6	21.8	34.6	58.8	13.6	28.2

While education (and training) is deemed to be the primary resource for avoiding unemployment when entering the labour market (Gangl et al 2003) I now examine whether the influence of early work experiences, when controlling for education and other individual and school level characteristics can reduce the risk of unemployment over the transition phase.

Multivariate Analyses

A multinomial regression model was carried out in a variance components framework to examine the influence of individual and school level characteristics and early work experiences on the probability of experiencing different amounts of unemployment since leaving school (see Table 8.2).

Model 1 includes individual level characteristics. Model 1 includes individual level characteristics. In relation to gender, there were no evident gender differences between those who spent 1-6 months in unemployment and those who did not spend any time in unemployment. However, males were less likely than females to spend seven months or more in unemployment than not experience unemployment at all. In relation to educational attainment at second level, there were no differences in unemployment patterns for those who left school upon completion of the Junior Certificate and those who left school before completing the Junior Certificate. We see that school leavers who completed the established leaving certificate and those who completed the Leaving Certificate Vocational programme were all less likely to spend time in unemployment than no time at all in unemployment relative to those who left school without completing the Junior Certificate examination. Students from non manual background were more likely to spend between 1 and 12 months in unemployment than no time in unemployment relative to those from professional class backgrounds. Students whose parents had a Leaving Certificate were also less likely to spend any time in unemployment relative to none than those whose parents had primary education or less. Furthermore, those whose parents were in full parental employment were less than those whose were exposed to parental unemployment were less likely to spend 6 months or more in employment than experience no unemployment. In the variance components framework, there was no effect of local area deprivation on unemployment incidence or duration.

Model 2 then includes school characteristics. We now see that students who attended community comprehensive schools are more likely than those who attended secondary schools to experience small amounts of unemployment relative to no unemployment. The influence of attending a community/comprehensive school persists when Model 3 includes a series of dummy variables indicating whether the school leaver had experience any type of work experience before leaving school. We

now see that students who had experience of a part time job are less likely to experience unemployment than those who had no work experience at all before leaving school. Furthermore, we find that students who had both part time job work experience and school organised work experience were less likely to experience seven months or more in unemployment than those who did not have any work experience before leaving school.

Table 8.2a: Results of variance components multinomial regression. Dependent Variable: amount of time spent in unemployment

	1-6 months v None			7-12 months v None			13+ months v None		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	-1.33 (.277)	-1.042 (.606)	-1.042 (.165)	-1.34 (.383)	-1.412 (.1.151)	-1.420 (1.141)	-.135 (.362)	.096 (.803)	.142 (.794)
Male	-.129 (.143)	-.158 (.147)	-.165 (.147)	-.610 (.211)*	-.705 (.217)*	-.696 (.291)*	-.579 (.170)*	-.630 (.173)*	-.630 (.173)*
Completed Junior Cert	-.188 (.273)	-.192 (.264)	-.192 (.275)	-.309 (.294)	-.303 (.292)	-.315 (.291)	-.402 (.281)	-.402 (.288)	-.411 (.288)
Left during senior cycle	-.040 (.263)	-.064 (.264)	.151 (.291)	-.414 (.358)	-.412 (.356)	.099 (.392)	-1.621 (.342)*	-1.606 (.343)*	-1.075 (.432)*
Completed estab LC	-.656 (.238)*	-.623 (.240)*	-.326 (.273)	-2.152 (.339)*	-2.107 (.340)*	-1.523 (.401)*	-3.167 (.388)*	-3.119 (.407)*	-2.576 (.436)*
Completed LCVP	-.729 (.273)*	-.684 (.282)*	-.384 (.308)	-2.205 (.577)*	-2.192 (.577)*	-1.407 (.656)*	-3.439 (.724)*	-3.363 (.683)*	-2.545 (.678)*
Completed LCA	.282 (.273)	.301 (.272)	.566 (.321)	-.994 (.402)*	-.971 (.392)*	-.160 (.463)	-1.600 (.400)*	-1.558 (.411)*	-.644 (.530)
Non Manual	.353 (.172)*	.330 (.182)	.347 (.184)*	.943 (.311)*	.837 (.306)*	.860 (.314)*	.153 (.264)	.093 (.263)	.090 (.260)
Skilled manual	.338 (.207)	.325 (.215)	.359 (.220)	.649 (.437)*	.514 (.439)	.580 (.447)	-.012 (.298)	-.070 (.295)	-.053 (.292)
Semi-skilled manual	.032 (.248)	-.016 (.263)	-.077 (.268)	.407 (.413)	.287 (.411)	.314 (.415)	-.504 (.414)	-.552 (.407)	-.561 (.402)
Unclassified	-.310 (.267)	-.283 (.272)	-.273 (.278)	.369 (.453)	.352 (.440)	.353 (.443)	-.052 (.336)	-.040 (.342)	-.058 (.431)
Junior Certificate	-.424 (.179)*	-.402 (.176)*	-.416 (.180)*	-.387 (.292)	-.357 (.283)	-.379 (.291)	-.561 (.274)	-.556 (.268)*	-.560 (.267)*
Leaving Certificate	-.454 (.193)*	-.389 (.186)*	-.412 (.189)	-1.077 (.333)*	-.955 (.312)*	-.956 (.313)*	-.671 (.295)*	-.629 (.301)*	-.637 (.306)*
Third level	-.577 (.234)*	-.528 (.236)*	-.574 (.241)*	-.345 (.425)	-.166 (.415)	-.180 (.425)	-1.036 (.503)*	-.980 (.503)	-.976 (.511)
Unclassified	.263 (.217)	.282 (.213)	.309 (.214)	-.647 (.465)	-.681 (.471)	-.603 (.461)	-.109 (.371)	-.140 (.365)	-.110 (.362)
Full P employment	-.113 (.144)	-.114 (.144)	-.091 (.144)	-.483 (.198)*	-.487 (.199)*	-.430 (.201)	-1.108 (.269)*	-1.112 (.269)*	-1.064 (.270)*
Single parent family	.364 (.222)	.348 (.227)	.312 (.228)	.141 (.317)	.168 (.311)	.092 (.307)	-.345 (.371)	-.315 (.377)	-.368 (.372)
High deprivation	.252 (.166)	.318 (.171)	.328 (.174)*	-.082 (.286)	.064 (.296)	.031 (.298)	.148 (.242)	.203 (.244)	.180 (.245)
Moderate deprivation	.052 (.188)	.074 (.192)	.085 (.194)	-.075 (.253)	.110 (.267)	.122 (.261)	-.018 (.275)	.012 (.279)	.026 (.284)
Community/Comp		.516 (.233)*	.521 (.237)*		.559 (.423)	.544 (.419)		.316 (.465)	.301 (.469)
Vocational		.302 (.212)	.296 (.217)		.631 (.403)	.581 (.401)		.638 (.420)	.604 (.422)
Mixed		-.275 (.224)	-.256 (.225)		.435 (.405)	.407 (.398)		-.361 (.398)	-.377 (.406)
Socio-mix		-.094 (.142)	-.107 (.142)		-.218 (.260)	-.216 (.256)		-.082 (.236)	-.091 (.235)
Diff Curr senior cycle		-.063 (.192)	-.061 (.191)		-.129 (.252)	-.085 (.253)		-.104 (.255)	-.073 (.259)
Schwk only			-.000 (.230)			-.132 (.350)			-.133 (.457)
PTJ only			-.629 (.213)*			-1.145 (.441)*			-.957 (.463)*
Both ptj and Schwk			-.342 (.209)			-1.507 (.475)*			-2.016 (.683)*

Table 8.2b: Diagnostics from Table 8.2

	Model 1	Model 2	Model 3
N	2304	2304	2304
Chi^2	754.34***	843.32***	869.29***

Reference category: female, higher professional background, parents with primary or lower level of education, living in household exposed to unemployment, both parents present, high deprivation area, secondary school, single-sex school, no differentiated curriculum at senior cycle * Indicates coeff/se >

Senior cycle leavers

A binary logistic regression was used to examine the influence of early work experience, gender, educational attainment, school type attended and parental education in relation to the likelihood of experiencing unemployment since leaving school among senior cycle leavers (see Table 8.3 and 8.4). Separate analyses were carried out for males and females. The results indicate that the effect of early work experiences on the probability of experiencing unemployment over the period remain unchanged even when other factors were taken into account, and this was true for both males and females. Senior cycle leavers who had experience of both part time jobs and school organised work experiences or part time jobs only were less likely to experience unemployment than those without any work experience at all. However, differences exist between males and females in relation to the influence of other independent variables. What is particularly evident is that the coefficient for parental education of degree or higher is negative and significant for females but not for males, suggesting perhaps an indirect effect of cultural capital for males. Furthermore, the coefficients for local area socio-economic disadvantage for males are negative and significant but this is not the case for females, suggesting that for males access to employment in local labour markets is constrained, resulting in short periods of unemployment.

A limitation of the analyses presented here is that they refer to counts of periods of unemployment or categories of the number of months spent in unemployment rather than consecutive periods of unemployment. The next set of analyses considers how the economic position of individual school leavers changes through the first 20

months after leaving initial education, paying particular attention to how the transition process depends on educational qualifications and early work experience acquired while still at school. Survival functions are now used to examine consecutive periods of unemployment. Two main analyses were carried out to examine (1) the influence of early work experiences on movements out of employment, that is, whether survival functions in employment are the same for all school leavers, and (2) the transition from employment to unemployment for all school leavers. Particular attention will be paid to school leavers who have not moved into third level education.

Are survival functions in employment the same for all school leavers?

Figure 8.1 illustrated that a high proportion of school leavers were in employment in July 2001, and Table 8.1 shows that time spent in employment is not the same for all school leavers. Analyses were undertaken to examine the survival functions of school leavers out of employment in July 2001 to any other status. Preliminary analyses (not shown here) suggest that survival functions are not the same for all groups of school leavers when taken with the stage that they left school. School leavers who sat the established leaving certificate and school leavers who completed the LCVP follow similar trajectories from employment in July 2001. School leavers who drop out of school before completing the junior certificate, those who drop out during leaving certificate and those who completed the LCA, all share similar trajectories while those who dropped out before completion of the junior certificate seem to follow a trajectory of their own[70].

[70] The log rank test, breslow test and tarone-ware test each reject the null hypothesis that the survival functions are the same for each group, meaning that there is a difference in survival functions for the groups, however, further analyses indicates that the middle group do not have significantly different survival functions from each other.

Table 8.3: Results of binary regression model estimating factors that influence experiencing at least one month of unemployment since leaving school, females only

	Model 1	*Model 2*	*Model 3*	*Model 4*
Early work experience				
SCHWK	.347 (.256)	.023 (.279)	.115 (.286)	.142 (.289)
PTJ & SCHWK	**-.452 (.237)***	**-.907 (.270)*****	-.845 (.273)**	-.826 (.275)**
PTJ	-.714 (.240)**	-.613 (.252)**	-.605 (.256)***	-.607 (.258)*
Ref: *No work experience*				
Highest Level of Education				
Drop out during senior cycle		-.168 (.314)	-.184 (.319)	-.185 (.322)
Established LC		-1.795 (.285)***	-1.627 (.292)***	-1.598 (.292)***
LCVP		-1.620 (.344)***	-1.483 (.350)***	-1.469 (.351)***
Ref: *LCA*				
Parental Social Class				
Higher/Lower Professional			.148 (.205)	.150 (.208)
Ref: *All other social classes*				
Parental Employment				
Full Household Employment			-.332 (.200)^	-.320 (.201)
Ref: *Exposed to unemployment*				
Family Structure				
Single parent household			-.049 (.335)	-.038 (.336)
Ref: *Both parents present*				
Parental Education			-.909 (.309)***	-.901 (.310)**
Degree or higher				
Ref: *Second level education or lower*				
Local socio-economic disadvantage				
Medium				-.008 (.236)
Low (Ref: *High*)				-.294 (.242)

Table 8.4: Results of binary regression model estimating factors that influence experiencing at least one month of unemployment since leaving school, males only

	Model 1	*Model 2*	*Model 3*	*Model 4*
MALE	*-1.428*	*-.666*	*-.662*	
Early work experience				
SCHWK	.106 (.264)	-.197 (.283)	-.168 (.285)	-.135 (.289)
PTJ & SCHWK	**-.354 (.254)**	**-.637 (.275)***	-.586 (.279)*	-.650 (.284)*
PTJ	-.697 (.277)*	-.708 (.280)**	-.723 (.282)*	-.839 (.286)**
Ref: *No work experience*				
Highest Level of Education				
Drop out during senior cycle		-.160 (.307)	-.159 (.308)	-.156 (.314)
Established LC		-.967 (.301)***	-.911 (.306)**	-.802 (.313)*
LCVP		-.800 (.405)*	-.768 (.406)*	-.743 (.412)^
Ref: *LCA*				
Parental Social Class				
Higher/Lower Professional			.017 (.212)	-.007 (.215)
Ref: *All other social class backgrounds*				
Parental Employment				
Full household employment			-.075 (.203)	-.061 (.207)
Ref: *Exposed to unemployment in the home*				
Family Structure				
Single parent household			.275 (.338)	.413 (.348)
Ref: *Both parents present*				
Parental Education				
Degree or higher			-.243 (.266)	-.177 (.273)
Ref: *Second level education or lower*				
Local socio-economic disadvantage				
Medium				-.700 (.247)**
Low (Ref: *High*)				-.974 (.254)***

School leavers who complete the established leaving certificate or LCVP seem to survive in employment the shortest time while those who have dropped out having completed the junior certificate appear to survive in employment the longest time. Each of the factors known to be associated with survival in employment over the period at the bivariate level were considered simultaneously in a regression. Table 8.5 on the next page shows the estimates of the likelihood of moving out of employment into any other status. The final model indicates that the stage that young people left school is significantly related to survival time in employment. The negative regression coefficients (and odds ratios less than one) indicates that those who dropped out upon completion of the JC, those who dropped out during senior cycle and those who completed the LCA are less likely to drop out of employment and move into another status than other school leavers. Females are more likely to leave employment, as are those whose parents have a Leaving Certificate or third level education, and those attending secondary or community schools. While school leavers with experience of both PTJ & SCHWK before leaving school have a higher likelihood of moving to another status, when school type is taken into account, the effect is no longer significant.

Table 8.5: The likelihood of moving from employment to another status position

	Model 1	Model 2	Model 3	Model 4	Model 5
Stage Left Initial Education					
Dropped out upon completion of JC	-.855 (.223)***	-.811 (.223)***	-.833 (.223)***	-.825 (.224)***	-.840 (.224)***
Dropped out during Leaving Certificate	-.377 (.213)^	-.352 (.214)	-.427 (.215)*	-.549 (.224)*	-.579 (.224)***
Completed established Leaving Certificate	.546 (.171)***	.504 (.171)***	.342 (.174)*	.304 (.178)^	.237 (.178)
Completed Leaving Certificate Vocational	.348 (.194)^	.270 (.195)	.114 (.198)	-.015 (.208)	-.047 (.208)
Completed Leaving Certificate Applied	-.343 (.227)	-.360 (.227)	-.384 (.227)	-.591 (.243)*	-.587 (.243)*
Ref: *Dropped out before completing JC*	Ref	Ref	Ref	Ref	Ref
Gender		.275 (.082)***	.280 (.082)***	.280 (.083)***	.306 (.083)***
Female		Ref	Ref	Ref	Ref
Ref: *Male*					
Parental Education					
Junior Certificate			.043 (.132)	.047 (.132)	.039 (.132)
Leaving Certificate			.328 (.126)**	.311 (.126)*	.276 (.126)*
Diploma or Higher			.677 (.132)***	.635 (.134)***	.575 (.135)***
Unclassified			.232 (.192)	.213 (.192)	.276 (.193)
Ref: *Primary or Less*			Ref	Ref	Ref
Early work experience					
PTJ & SCHWK				.231 (.058)*	.141 (.122)
SCHWK				.050 (.160)	.005 (.160)
PTJ				-.116 (.105)	-.109 (.105)
Ref: *No work experience*				Ref	Ref
School Type Attended					
Secondary					.585 (.091)***
Community/Comprehensive					.330 (.125)**
Ref: *Vocational*					Ref
Chi	134.103	146.211	189.968	202.067	242.728
	5	6	10	13	15
	.000	.000	.000	.000	.000

The transition from employment into unemployment

When the transition from employment to unemployment was considered, just 11% of school leavers who were employed in July 2001 experienced a move to unemployment over the period in question. Previous research suggests that the move from employment to unemployment is independent of gender and that the likelihood of remaining in employment as against moving into unemployment increases with increasing levels of education (Breen, 1991) – a pattern that holds for males and females. The distribution of the time (in months) to becoming unemployed (from employed) was estimated using Kaplan-Meier survival analysis/event history analysis for all those for whom data was known for each of the 20 months upon leaving school. The observed survival times ranged from 1 to 20 months with the majority of respondents being censored, that is, the majority of the respondents remained in employment over the period.

Survival analyses were undertaken to examine the time to unemployment for those who were employed in July 2001. Stage left school, gender, previous work experience and parental education were examined in relation to survival times in employment or education as opposed to unemployment. The final model indicates that the likelihood of moving into unemployment is lower for those who dropped out upon completion of the junior certificate, those who completed the established LC and those who completed the LCVP, which could indicate employers' preferences for recognised qualifications.

Females have a higher likelihood of moving into unemployment over the period than males and those whose parents had junior or leaving certificate (again recognised qualifications) displayed a lower likelihood of moving into unemployment, particularly than those whose parents were educated to primary level or less. Furthermore, even when controlling for all these factors, work experience attained before leaving school was a predictor of the survival function – school leavers who had gained any type of work experience before leaving school had a lower likelihood of moving into unemployment than those without (Model 4, Table 8.6). When the different types of early work experiences gained through second level education are taken into account (Model 5 Table 8.6), those who had a PTJ before

leaving school had a lower likelihood of moving from employment to unemployment over the period, and those who had a SCHWK before leaving school approached significance in likelihood of moving from employment to unemployment over the period (Model 5, Table 8.6). When considering senior cycle leavers separately, these findings were reproduced (Model 4, Table 7).

Further analyses were taken to account for school leavers who did not experience any further education or training over the period (Table 8.8). The findings suggest that among this specific sub-sample, females continue to be associated with decreased survival times in employment relative to males and the likelihood of moving into unemployment is less likely for those with the LC and LCVP but also those who left school having completed the Junior Certificate. When a measure of socio-economic deprivation in the local area was included to the model, having experience of work before leaving school no longer had an influence on the likelihood of remaining in employment rather than moving into unemployment (Model 4, Table 8.8).

Table 8.6: Cox Regression of likelihood of moving from employment into unemployment, all school leavers (n=1257)

	Model 1	Model 2	Model 3	Model 4	Model 5
Stage Left Initial Education					
Dropped out upon completion of JC	-.983 (.277)***	-.891 (.279)***	-.838 (.280)**	-.815 (.280)**	-.818 (.280)**
Dropped out during Leaving Certificate	-.793 (.280)**	-.738 (.281)**	-.642 (.285)*	-.439 (.298)	-.427 (.314)
Completed established Leaving Certificate	-1.787 (.257)***	-1.891 (.260)***	-1.764 (.274)***	-1.615 (.282)***	-1.607 (.283)***
Completed Leaving Certificate Vocational	-2.166 (.426)***	-2.336 (.429)***	-2.228 (.434)***	-1.997 (.446)***	-1.996 (.458)***
Completed Leaving Certificate Applied	-.736 (.297)*	-.772 (.298)**	-.761 (.299)*	-.479 (.325)	-.482 (.366)
Ref: *Dropped out before completing JC*	Ref	Ref	Ref	Ref	Ref
Gender					
Female		.553 (.178)**	.518 (.178)**	.512 (.178)**	.500 (.178)**
Ref: *Male*		Ref	Ref	Ref	Ref.
Parental Education					
Junior Certificate			-.615 (.229)**	-.599 (.229)**	-.601 (.229)*
Leaving Certificate			-.529 (.236)*	-.526 (.237)*	-.528 (.237)*
Diploma or Higher			-.421 (.300)	-.401 (.301)	-.401 (.302)
Unclassified			-.284 (.336)	-.259 (.336)	-.263 (.336)
Ref: *Primary or Less*			Ref	Ref	Ref
Early work experience					
Work experience before leaving school				-.473 (.197)*	
Ref: *No work experience*					
Early work experiences					
PTJ & SCHWK					-.412 (.285)
SCHWK					-.736 (.414)^
PTJ					-.465 (.208)*
Ref: *None*					Ref
Chi^2	72.282	81.508	92.634	99.116	99.602
Df	5	6	10	11	13
Sig	.000	.000	.000	.00	.000

Table 8.7: Cox Regression of likelihood of moving from employment into unemployment, senior cycle leavers only (n=989)

	Model 1	Model 2	Model 3	Model 4	Model 5
Stage Left Initial Education					
Completed established Leaving Certificate	-1.011 (.260)***	-1.108 (.268)***	-1.053 (.272)***	-1.121 (.281)***	-1.095 (.281)***
Completed Leaving Certificate Vocational	-1.390 (.428)***	-1.531 (.437)***	-1.508 (.438)***	-1.504 (.438)***	-1.457 (.439)***
Completed Leaving Certificate Applied	.041 (.300)	-.013 (.302)	-.112 (.305)	-.060 (.316)	-.006 (.319)
Ref: *Dropped out during senior cycle*	Ref.	Ref.	Ref.	Ref.	Ref.
Gender					
Female		.350 (.222)	.299 (.222)	.282 (.222)	.305 (.223)
Ref: *Male*		Ref.	Ref.	Ref.	Ref.
Parental Education					
Junior Certificate			-.715 (.303)*	-.725 (.303)*	-.722 (.303)*
Leaving Certificate			-.526 (.287)^	-.539 (.288)^	-.564 (.289)*
Diploma or Higher			-.641 (.351)^	-.635 (.353)^	-.652 (.354)^
Unclassified			-.322 (.490)	-.323 (.490)	-.307 (.491)
Ref: *Primary or Less*			Ref.	Ref.	Ref.
Early work experience					
PTJ & SCHWK				-.391 (.316)	
SCHWK				-.750 (.436)^	
PTJ				-.427 (.301)	
Ref: *No work experience*				Ref.	
Work experience in senior cycle					
SCHWK					-.706 (.379)^
PTJ					-.744 (.299)*
PTJ & SCHWK					-.577 (.301)*
Ref: *No work experience*					Ref
Chi^2	30.058***	32.453***	40.956***	44.165***	47.702***
Df	3	4	8	11	11

Table 8.8: Cox Regression of likelihood of moving from employment into unemployment, non third level bound (n=989)

	Model 1	Model 2	Model 3	Model 4
Early work experience				
Yes	-.584 (.225)***	-.621 (.225)**	-.467 (.258)^	-.382 (.259)
Ref: *No*	Ref.	Ref.	Ref.	Ref
Gender				
Female		.881 (.222)***	1.078 (.232)***	1.040 (.236)***
Ref: *Male*		Ref.	Ref.	Ref.
Stage Left Initial Education				
Left having completed JC			-.777 (.351)*	-.663 (.355)^
Left during senior cycle			-.525 (.380)	-.547 (.382)
Completed established Leaving Certificate			-1.279 (.356)***	-1.170 (.367)***
Completed Leaving Certificate Vocational			-1.993 (.657)**	-1.851 (.670)**
Completed Leaving Certificate Applied			.695 (.435)	-.666 (.438)
Ref: *Dropped out before junior certificate*			Ref	Ref.
Parental Education				
Junior Certificate				.021 (.268)
Leaving Certificate				-.829 (.376)*
Diploma or Higher				.321 (.422)
Unclassified				.118 (.429)
Ref: *Primary or Less*				Ref
Local Socio-Economic Deprivation				
Moderate				-.581 (.262)*
Low				-.955 (.288)***
Ref: *High*				Ref
Chi^2	6.912*	23.612***	45.393***	44.165***
Df	1	2	7	11

8.6.2. The influence of early work experiences on labour market position at the time of the survey

The previous section outlined that school leavers who had experience of part time jobs only were less likely to move from employment into unemployment than school leavers who had no work experience at all, even when stage left school, gender and parent education were taken into account. Among senior cycle leavers, those with experience of both SCHWK & PTJ were less likely to move from employment into unemployment all else being equal. However, when the same analyses were conducted for a sub-cohort of school leavers who did not enter into further education or training over the period, having experience of any type of work experience before leaving school was independent of the likelihood of moving from employment into unemployment. In this section of the chapter I consider the influence of early work experience on different status positions in the labour market at the time of the survey. While the previous analyses could not differentiate between those who were in employment at the various time points from those who were in apprenticeships, a differentiation can now be made through examining the status positions of school leavers at the time the survey. The research question now being addressed is – what is the influence of early work experiences on the primary economic status of school leavers at the time of the survey?

A descriptive analysis of the determinants of the Primary Economic Status at the time of survey

Tables 8.9 and 8.10 report the primary economic status at the time of the survey (February 2003) according to educational qualifications and gender for all school leavers, and indicate that economic positions are in fact segregated both by gender and educational level attained at second level education (see Figure 8.4). At the time of the survey, the majority of young people were in the labour market, working for payment – in fact, a higher proportion of males than females were in employment and in apprenticeships, and a higher proportion of females than males were in education, indicating that that more females than males operate outside of the labour market – a finding that has been consistent for some time (see for example Breen 1991).

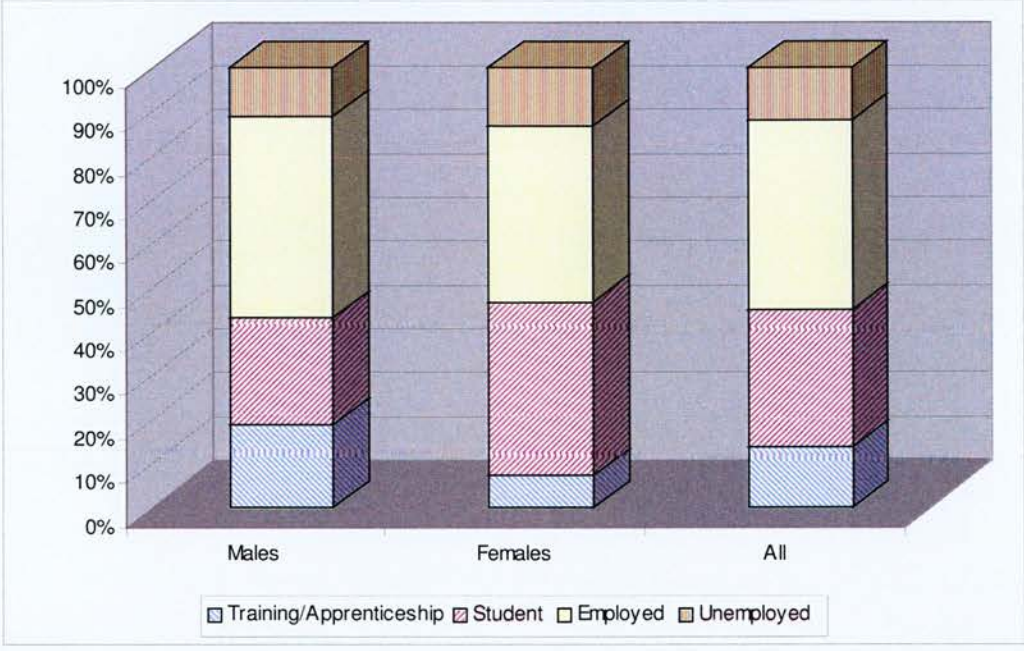
Table 8.9: Distribution of School Leavers by Primary Economic Status, Males only

	Drop out before completing JC	Drop Out upon completion of JC	Dropped out during senior cycle	Completed established Leaving Cert	Completed LCVP	Completed LCA	All	N
Training/Apprenticeship	27.5	21.5	28.9	11.9	11.5	20.0	18.7	232
Student	2.8	3.6	3.6	51.5	36.8	11.6	24.6	305
Working for Payment	40.8	57.0	56.6	33.2	48.3	60.0	45.7	566
Unemployed	28.9	17.9	10.8	3.4	3.4	8.4	11.0	136
Total	100	100	100	100	100	100	100	
N	142	279	166	470	87	95	1239	1239

Table 8.10: Distribution of School Leavers by Primary Economic Status, Females only

	Drop out before completing JC	Drop Out upon completion of JC	Dropped out during senior cycle	Completed established Leaving Cert	Completed LCVP	Completed LCA	All	N
Training/Apprenticeship	32.2	13.4	10.9	1.0	7.7	7.6	7.2	72
Student	5.5	11.0	10.9	57.6	44.4	15.2	39.6	397
Working for Payment	20.0	47.6	52.2	36.4	45.1	55.7	40.0	401
Unemployed	42.2	28.0	26.1	5.0	2.8	21.5	13.2	132
Total	100	100	100	100	100	100	100	
N	90	82	92	517	142	79	1002	1002

Figure 8.4: Distribution of primary economic position at the time of the survey among males, females and all school leavers



Among females, rates of labour force participation were strongly related to educational qualifications: rates of participation being particularly low among those who dropped out of school before completing the junior certificate. While not shown here, the percentage of first time job seekers was low for both males and females, the majority of this group having dropped out before completing the Junior Certificate. Both this figure and the percentage in unemployment bear an obvious relationship with educational qualifications.

In an attempt to examine the influence of early work experiences, and educational level acquired during second level on the situation of school leavers at the time of the survey among other considerations, a multinomial logistic regression analysis was carried out. The multinomial logit model compares the effects of the independent variables on the probability of individuals being in a training/apprenticeship versus being in employment, the probability of being a student versus being in employment, and the probability of being unemployed versus being in employment (see Table 8.11). The independent variables considered were early work experience status before leaving school, the time of year the data was collected, parental class, parental

education, parental employment situation, number of parents present, school type attended and local authority area deprivation score.

Table 8.11 shows the results from the multinomial model, for all school leavers, presenting results separately for males and females. The results indicate that early work experience of any kind, before leaving school, has a greater influence on males' destinations than females, even when controlling for a range of other factors. Early work experience could differentiate males who were in training/apprenticeships from those working for payment, and those who were in unemployment from those who were in employment. However, no such effect was evident among females. The results indicate that males who had any type of early work experience before leaving school were less likely to be undergoing training/apprenticeships than be in employment, but were less likely to be unemployed than in employment, even when accounting for a range of factors. When the same analysis was run for junior cycle leavers (see Table 8.12), males who did not have a term time job in junior cycle were *more* likely to be in training/apprenticeship than working for payment. There are a number of interpretations for this finding. On the one hand, one could hypothesise that junior cycle leavers are in apprenticeships or training rather than employment by the time of the survey because they have had more time in the labour market to gain access to these programmes. On the other, it could be that because these school leavers already had experience of work before leaving school that employers offer apprenticeships because they see the work experience acquired already as a positive signal. Furthermore, junior cycle leavers who had experience of an early work experience(s) were significantly less likely to be in unemployment than in employment. Early would experiences could not differentiate students from those who were in employment at the time of the survey.

Table 8.11: Multinomial Regression model of probability of being in a certain economic status other than employment at the time of the interview, all school leavers.

	Training/Apprenticeship Ref: Working for Payment		Student Ref: Working for Payment		Unemployed Ref: Working for Payment	
	Males	Females	Male	Female	Male	Female
Intercept	-1.207*	-1.318	-1.337*	-.599	-.779	-.159
Early work experience						
Had early work experience	-.351 (.186)^	-.476 (.361)	-.280 (.201)	-.258 (.196)	-.952 (.232)***	-.428 (.267)
Ref: *No early work experience*						
Stage Left School						
Dropped out, no formal examination Completed	.507 (.368)	1.918 (.604)**	-.940 (.644)	.187 (.640)	.827 (.469)^	1.098 (.468)*
Junior Certificate	-.065 (.329)	.564 (.615)	-1.132 (.490)*	-.218 (.535)	.287 (.446)	.093 (.433)
Dropped out during senior cycle	.357 (.326)	.357 (.578)	-1.109 (.549)*	-.406 (.501)	.186 (.470)	.002 (.399)
Completed established LC	-.108 (.320)	-1.529 (.652)*	1.717 (.367)***	1.574 (.367)***	-.467 (.481)	-1.137 (.378)**
Completed LCVP	-.421 (.446)	.284 (.567)	1.262 (.425)**	1.049 (.399)**	-.765 (.718)	-1.823 (.602)**
Ref: *Completed LCA*						
Parental Social Class						
Higher and Lower Professional	.219 (.304)	-1.907 (.604)**	.580 (.346)^	-.522 (.317)	-.635 (.382)^	-.676 (.437)
Non Manual	.366 (.280)	-.810 (.427)*	.324 (.347)	-.479 (.310)	-.068 (.302)	.080 (.375)
Skilled Manual	.360 (.293)	-.844 (.451)^	-.003 (.376)	-.295 (.326)	-.078 (.324)	-.173 (.405)
Unclassified	.325 (.375)	-.403 (.510)	1.115 (.430)*	-.499 (.385)	-.589 (.461)	.153 (.458)
Ref: *Semi/Unskilled Manual*						
Parental Education						
Unknown	.046 (.375)	.193 (.801)	-.974 (.401)*	-1.342 (.429)**	-.494 (.514)	-.352 (.569)
Primary or Less	-.341 (.325)	.048 (.709)	-1.228 (.333)***	-1.497 (.300)***	.082 (.408)	-.505 (.471)
Junior Certificate	.085 (.294)	-.823 (.747)	-1.042 (.275)***	-1.246 (.270)***	-.325 (.403)	-.675 (.470)
Leaving Certificate	-.262 (.298)	-.299 (.731)	-.726 (.245)**	-.835 (.251)***	-.758 (.427)	-.614 (.475)
Ref: *Diploma or Higher*						
Household Employment Situation	.134 (.171)	.097 (.334)	-.073 (.185)	-.081 (.175)	.043 (.219)	.286 (.253)
Exposed to household unemployment						
Ref: *Full household Employment*						
Number of Parents Present in the home						
All parents present	.031 (.294)	.620 (.553)	.177 (.339)	.128 (.317)	.235 (.377)	-.341 (.346)
Ref: *Single parent household*						
School Type Attended						
Secondary School	.353 (.193)^	.306 (.320)	.714 (.197)***	1.581 (.185)***	.051 (.248)	-.057 (.262)
Community/Comprehensive	.278 (.214)	-.455 (.449)	-.177 (.265)	.699 (.256)**	-.296 (.299)	.207 (.308)
Ref*: Vocational*						
Local socio-economic disadvantage						
High	.261 (.208)	.100 (.382)	.134 (.238)	.062 (.212)	.173 (.255)	.787 (.296)**
Medium	-.017 (.188)	.051 (.342)	.016 (.195)	.012 (.194)	-.185 (.244)	.483 (.277)^
Ref: *Low*						

Table 8.12: Determinants of Economic Status at the time of the survey, Junior Cycle Leavers only

	Training/Apprenticeship Ref: Working for Payment		Student Ref: Working for Payment		Unemployed Ref: Working for Payment	
	Males	Females	Male	Female	Male	Female
Intercept	-.811^	-.863	-2.598*	-.979	-2.145**	-1.281
PTJ Junior Cycle						
None	.665 (.346)*	.298 (.716)	.536 (.698)	.153 (.876)	2.186 (.620)***	1.550 (.838)^
For 1 year	.153 (.422)	.629 (.949)	-.175 (.947)	.299 (1.137)	1.492 (.674)*	2.128 (.963)*
Ref: *1 year or more*						
Stage Left School						
Completed Junior Certificate	-.462 (.267)^	-1.374 (.484)**	-.627 (.604)	-.226 (.653)	-.525 (.277)*	-1.157 (.418)**
Ref: *Left before completing JC*						
Parental Social Class						
All Other Social Groups	-.032 (.254)	1.452 (.504)**	-.491 (.592)	.005 (.621)	.053 (.270)	.587 (.407)
Ref: *Higher and Lower Professional*						
Household Employment Situation						
Exposed to household unemployment	.040 (.266)	.356 (.532)	-.939 (.604)	-.483 (.630)	.268 (.293)	.375 (.454)
Ref: *Full household employment*						
Parental Education						
Higher than primary	-.174 (.269)	-.606 (.462)	.850 (.791)	-.215 (.627)	-.651 (.273)*	-.228 (.404)
Ref: *Primary or Lower*						

Table 8.13: Determinants of Economic Status at the time of the survey, Senior Cycle Leavers

	Training/Apprenticeship Ref: Working for Payment		Student Ref: Working for Payment		Unemployed Ref: Working for Payment	
	Males	Females	Male	Female	Male	Female
Intercept	-.917*	-1.958*	-1.100*	-1.109*	-1.302^	-1.014
Early Work Experience in Senior Cycle						
PTJ & SCHWK	-.498 (.323)	-.485 (.544)	.067 (.262)	-.101 (.251)	-.788 (.491)	-1.027 (.431)*
SCHWK	-.200 (.355)	.182 (.575)	.274 (.310)	-.121 (.311)	-.045 (.484)	.126 (.419)
PTJ	.067 (.292)	-.942 (.610)	**-.478 (.249)***	**-.396 (.222)^**	-.572 (.464)	-.538 (.372)
Ref: *No early work experience*						
Stage Left School						
Dropped out during senior cycle	.242 (.336)	.278 (.596)	-1.193 (.576)*	-.447(.502)	.231 (.485)	-.171 (.418)
Completed established LC	-.392 (.359)	-1.429 (.686)*	2.016 (.385)***	1.639 (.377)***	-.337 (.550)	-1.262 (.420)**
Completed LCVP	-.637 (.458)	.371 (.575)	1.332 (.425)**	1.067 (.399)**	-.598 (.735)	-1.894 (.616)**
Ref: *Completed LCA*						
Parental Social Class						
All Other Social Groups (incl unknown)	-.089 (.222)	.224 (.411)	-.183 (.205)	.201 (.195)	.037 (.341)	-.043 (.299)
Ref: *Professional & Non Manual*						
Parental Education						
Unknown	.816 (.470)^	.555 (.931)	-.686 (.435)	-1.239 (.436)**	-.201 (.875)	.517 (.648)
Primary or Less	-.434 (.417)	.644 (.717)	-1.218 (.338)***	-1.522 (.299)***	.264 (.529)	.056 (.518)
Junior Certificate	.414 (.349)	-.373 (.802)	-.976 (.285)***	-1.162 (.268)***	.084 (.519)	-.073 (.521)
Leaving Certificate	.149 (.347)	-.159 (.766)	-.616 (.250)*	-.823 (.244)***	-1.117 (.624)^	-.096 (.513)
Ref: Diploma or Higher						
School Type						
Secondary	.539 (.250)*	-.183 (435)	.653 (.210)**	1.522 (.191)***	.099 (.395)	-.019 (.314)
Comm/Comp (Ref: *Vocational)*	.294 (.283)	-.179 (.604)	-.256 (.282)	.742 (.271)**	-.022 (.437)	.382 (.419)
Local socio-economic disadvantage						
High	.156 (.284)	.280 (.510)	.279 (.259)	.151 (.220)	.300 (.404)	1.072 (.374)**
Medium	-.242 (.244)	.007 (.459)	-.139 (.207)	.017 (.200)	-.638 (.401)	.688 (.367)^
Ref: *Low*						

Among senior cycle leavers, those who had a PTJ(s) in senior cycle were less likely to be students and more likely to in employment, with the influence of part time job holding being marginally stronger for males than females (Table 8.13). However when term time job holding in junior cycle was taken into account, for males, school leavers who had a term time job in 2 years of junior cycle were less likely to be students than in employment, even when controlling for other variables (the effect for females became redundant when stage left school was entered into the model). Finally females with experience of both a term time job(s) in senior cycle and a school organised work experience were less likely to be unemployed and this effect persisted even when previous term time working in junior cycle was added to the model (not shown here).

Labour Market Entrants

To look more closely at the significance of the relationship between labour market situation at the time of the survey and early labour market experiences acquired before leaving school, controlling for other factors associated with labour market situation, a multinomial regression was used (see Table 8.14). The multinomial model compares the effects of the independent variables on the probability of individuals being unemployed having given up the previous job versus employed, and the probability of being unemployed still looking for the first job versus in employment. We see that school leavers with an early work experience are significantly less likely to have given up their job or be looking for their first regular job compared to being in employment, even when controlling for a range of factors.

Table 8.14: Multinomial Regression of probability of labour market position at the time of the survey, all school leavers.

	Given up previous job v Working for Payment					Looking for 1st Job v Working for Payment				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-1.092***	-.874***	-.745**	-.197	-.314	-1.718***	-1.486***	-1.480*	-1.188	-1.245
Early Work Experience										
Yes	-.835 ***	-.857***	-.538**	-.538**	-.585**	-2..011***	-2.035***	-1.547***	-1.565***	-1.559***
Ref: *No*	(.158)	(.159)	(.188)	(.192)	(.194)	(.293)	(.294)	(.344)	(.352)	(.353)
Gender										
Male		-.374*	-.677***	-.671***	-.598***		-.402	-.736**	-.727*	-.687*
Ref: *Female*		(.159)	(.172)	(.174)	(.176)		(.255)	(.273)	(.283)	(.284)
Stage Left School										
Dropped out before JC										
			.889**	.841*	.731*			1.308*	1.212*	1.178^
Completed JC			(.335)	(.339)	(.344)			(.618)	(.626)	(.628)
			.136	.160	.146			.156	.145	.145
Dropped out senior cycle			(.315)	(.318)	(.320)			(.621)	(.630)	(.631)
			.157	.167	.093			-.050	-.116	-.133
Completed LC			(.311)	(.315)	(.317)			(.656)	(.663)	(.664)
			-.934**	-.833**	-.820*			-1.382*	-1.210^	-1.195
Completed LCVP			(.308)	(.314)	(.315)			(.665)	(.677)	(.677)
Ref: *Completed LCA*			-1.629**	-1.559**	-1.529**			-1.069	-1.026	-1.017
			(.520)	(.524)	(.526)			(.887)	(.899)	(.900)
Parental Social Class										
Higher and Lower Professional										
				-.751*	-.776*				-.916^	-.913
Non Manual				(.303)	(.305)				(.549)	(.550)
				-.178	-.198				.090	.087
Skilled Manual				(.254)	(.257)				(.421)	(.423)
				-.256	-.220				.144	.153
Unclassified				(.273)	(.276)				(.451)	(.455)
Ref: *Semi/Unskilled Manual*				-.374	-.316				-.267	-.223
				(.338)	(.345)				(.530)	(.534)
Household Employment										
Exposed to hh unemployment				.167	.104				.393	.373
Ref: *Full HH Employment*				(.177)	(.180)				(.309)	(.311)
Parental Education										
Unknown				-.311	-.383				-.909	-.908
				(.400)	(.404)				(.752)	(.754)
Primary or Less				-.272	-.289				-.028	-.013
				(.330)	(.333)				(.599)	(.602)
Junior Certificate				-.386	-.409				-.993	-.959

Leaving Certificate Ref: *Diploma or Higher*				(.326) -.710 (.344)*	(.328) -.736* (.345)				(.637) -.454 (.629)	(.639) -.443 (.631)
Local authority area deprivation										
High					.509** (.210)					.175 (.339)
Medium Ref: Low					.148 (.203)					.002 (.324)
	22.748 2***	41.519 4**	162.986 14***	933.624 32***	1147.157 36***	22.748 2***	41.519 4***	162.986 14***	933.624 32***	1147.157 36***

8.6.3. Labour market entrants' perceptions of current employment, job search strategies and conditions of employment

While the previous sections have examined the role of early work experiences in terms of employment status and time spent in employment/unemployment, this section now considers the conditions of employment among those in employment at the time of the survey. It should be noted that a likely confounding issue in assessing the impact of early work experience on employment outcomes involves the decision to enter employment rather a different economic status position. Employment outcomes are not observed for those not in employment, and Table 8.11 found that males and females in employment differ from those in other status positions, but they may also differ in unobservable characteristics. This sample selection issue may distort the results presented here. The first set of analyses considers school leavers' perceptions of the relevance of education and training in areas of work related competencies and perceptions of the influence of second level education/training on getting their current job. The second set of analyses then considers job search strategies used by school leavers in employment. Finally the third set of analyses considers the conditions of employment in relation to early work experiences to estimate whether different types of early work experiences play a role in gaining advantageous labour market conditions.

School leavers' perceptions of the relevance of education and training in areas of work related competencies: interpersonal communications and computer skills/abilities

School leavers in employment at the time of the survey were asked about their work related competencies and perceptions of education and training from the following question '*In general, thinking back to the education and/or training which you received, how useful do you feel this was to you in the following areas of work and life in general?*'. Figure 8.5 and 8.6 illustrate that among the school leavers in employment, perceptions of competencies vary according to educational levels achieved. Those who completed second level education were more likely to rate their education/training as being useful or very useful in terms of promoting interpersonal communications. Despite the emphasis on such skills in the Leaving Certificate

Vocational Programme and Leaving Certificate Applied programmes, there was no apparent difference in how school leavers who completed senior cycle responded to the question.

Figure 8.5: School leavers' perceptions of the usefulness of education and training for Interpersonal Communications, by stage left school

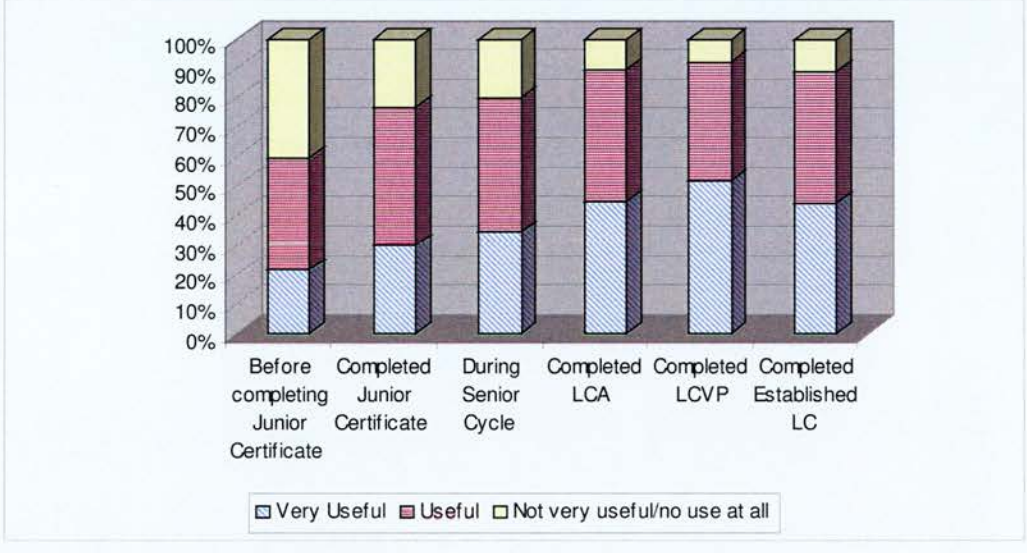


Figure 8.6: School leavers perceptions of the usefulness of education and training for Computer Skills/Abilities

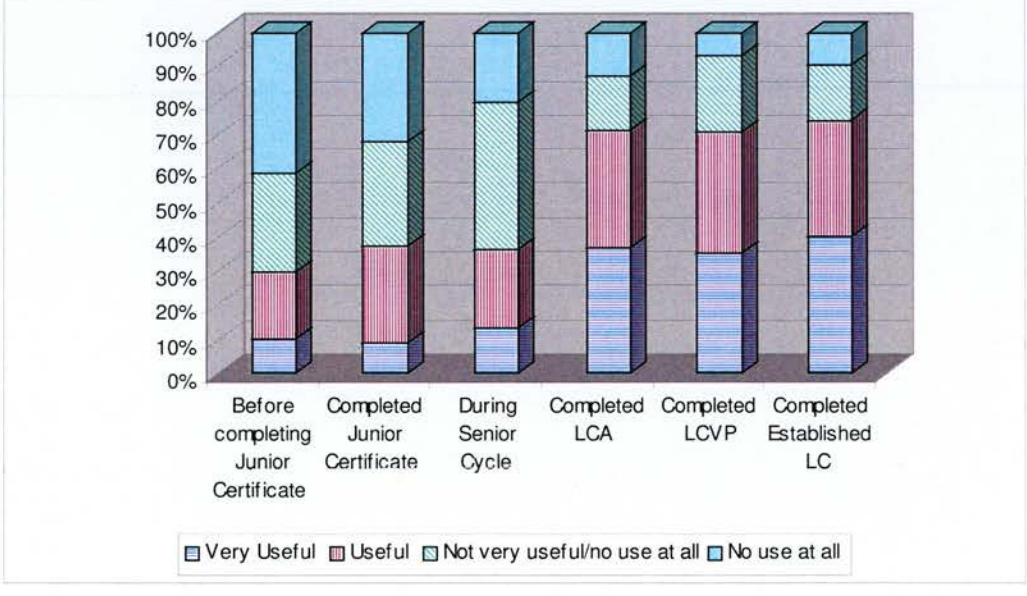


Table 8.15 presents the results of an ordinal regression that was estimated to consider how educational attainment and early work experience by senior cycle leavers had an influence on the usefulness of their education/training in terms of developing interpersonal communication skills. In order to help with the interpretation of the results, the scale was reversed from (1) of no use at all, (2) not very useful, (3) useful (4) very useful. In model 1 of Table 8.15, the coefficients for completion of the established Leaving Certificate, the Leaving Certificate Vocational and the Leaving Certificate Applied were positive and significant, telling us that completion of second level education is associated with (school leavers perceptions of) higher levels of usefulness of the education received for interpersonal communication skills as illustrated in Figure 8.5 above.

Table 8.15: Results of Ordinal Regression Model estimating the influence on education and early work experience on how school leavers perceive usefulness of education/training for interpersonal skills (senior cycle leavers only)

	Model 1	Model 2
Threshold		
1	-3.337 (.295)	-2.873 (.329)***
2	-1.561 (.184)	-1.082 (.237)***
3	.712 (.171)	1.222 (.235)***
2nd level education attainment		
Completed Leaving Certificate (established)	.488 (.197)*	.711 (.210)***
Completed LCVP	.809 (.254)***	.836 (.256)***
Completed LCA	.519 (.257)*	.406 (.261)
Ref: Dropped out during senior cycle		
Early work experience		
SCHWK		.701 (.267)**
PTJ		.279 (.204)
PTJ & SCHWK		.686 (.226)**
Ref: None		
Deviance final model 53.706, df=39, P<.05		

When early work experiences were added to the model, we find positive coefficients for the variables school organised work experience only and both school organised work experience and part time job holding, indicating that school leavers with these forms of early work experience were more likely to have found their education/training as being more useful in providing the interpersonal skills needed

in their current employment. However, when the early work experience variable was added to model 2, the coefficient for *completed LCA* was no longer significant.

Table 8.16: Results of Ordinal Regression Model estimating the influence on education and early work experience on how school leavers perceive usefulness of education/training for computer skills/abilities (senior cycle leavers only)

	Model 1	Model 2
Threshold		
1	-1.109 (.177)***	-.743 (.230)***
2	.366 (.167)*	.743 (.225)***
3	1.815 (.181)***	2.208 (.239)***
2nd level education attainment		
Completed Leaving Certificate (established)	1.400 (.197)***	1.582 (.209)***
Completed LCVP	1.240 (.245)***	1.246 (.247)***
Completed LCA	1.240 (.251)***	1.138 (.254)***
Ref: Dropped out during senior cycle		
Early work experience		
SCHWK		.624 (.258)*
PTJ		.180 (.198)
PTJ & SCHWK		.530 (.217)**
Ref: None		
Deviance final model		
57.261, df=39, P<.05		

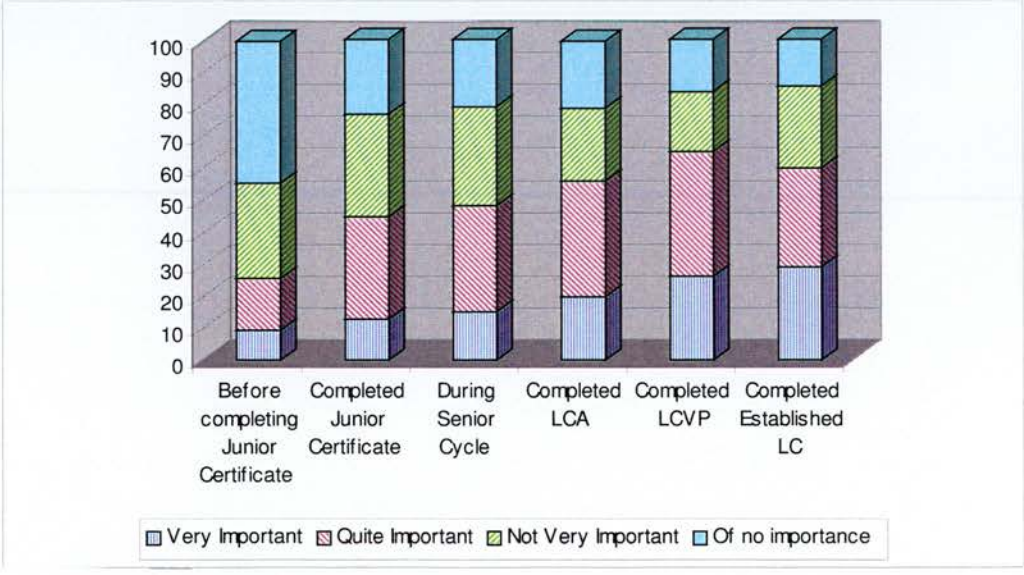
Table 8.16 presents the results of an ordinal regression model estimating the influence of education and early work experience on how school leavers perceive the usefulness of their education/training in developing computer skills/abilities. Again, among those in employment, perceptions of competencies in relation to computer skills/abilities vary greatly according to educational levels achieved (see Figure 8.6). School leavers who completed second level education were more likely to rate their education/training as being useful or very useful in terms computer skills/abilities acquired. Again, despite the emphasis on such skills in LCVP and LCA programmes, Figure 8.6 indicated there was no apparent difference in how school leavers who completed second level education responded to the question. These findings are confirmed by Model 1 in Table 8.16. When early work experiences were added to the model, Model 2 of Table 8.16 shows that school leavers who had SCHWK and SCHWK & PTJ were more likely to have found their education/training as being more useful in providing the interpersonal skills needed in their current employment

than those who had no experience of work before leaving school. The coefficients for the second level education attainment variable remained largely unchanged when the early work experience variable was added to the model. However, an increase is evident in the coefficient and standard error for *completed leaving certificate* suggesting a Transition Year effect among this cohort.

School leaver's perceptions of influence of education/training on getting the job

School leavers in employment at the time of the survey were also asked *To what extent do you feel that the education and/or training which you had completed when you applied for your current job (or job you held last week) was important in actually getting the job. In terms of GETTING the job would you say that your education and/or training were very important/quite important/not very important/of no importance at all?* The distribution of responses from this question according to levels of education acquired during second level are illustrated in Figure 8.7.

Figure 8.7: School leaver's perceptions of the importance of their education and training in getting the job



It's particularly evident from Figure 8.7 that school leaver's perceptions of the importance of their employment training in getting the job is stratified by educational attainment.

An ordinal regression was used to consider how educational attainment and early work experience by senior cycle leavers had an influence on the importance attached to their education and training in getting the job (see Table 8.17). In order to help with the interpretation of the results, the scale was reversed from (1) of no importance, (2) not very important, (3) quite important (4) very important.

Table 8.17: Results of Ordinal Regression Model estimating the influence on education and early work experience on how school leavers perceive importance of education/training in getting the job (senior cycle leavers only)

	Model 1	Model 2
Threshold		
1	-1.201 (.169)***	-.907 (.222)***
2	.080 (.160)	.386 (.218)^
3	1.554 (.171)***	1.876 (.230)***
2nd level education attainment		
Completed Leaving Certificate (established)	.567 (.186)**	.656 (.197)***
Completed LCVP	.587 (.237)*	.625 (.238)**
Completed LCA	.216 (.239)	.186 (.243)
Ref: Dropped out during senior cycle		
Early work experience		
SCHWK		.747 (.250)**
PTJ		.312 (.193)
PTJ & SCHWK		.179 (.210)
Ref: None		
Deviance final model 42.504, df=39, P>.05		

In the first model of Table 8.17, the coefficient for completion of the established Leaving Certificate and the LCVP was positive suggesting that it's associated with higher levels of importance in getting the job as illustrated in Figure 8.7 above. In the second model of Table 8.17 early work experiences in senior cycle are added to the model and we see that the coefficient that is positive and significant is that of SCHWK, suggesting that it's associated with higher levels of importance. The results would then indicate that school leavers who have completed the LC or the LCVP and who have had a SCHWK are more likely to feel that the education/training they received was of greater importance in getting their current job.

It is important to note however that the choice to participate in work during second level and measures of the perceptions of schooling as outlined above are likely to be intertwined. This endogenity problem complicates the attempt being made here to evaluate a causal effect between work experiences undertake and perceptions of schooling. As was outlined in an earlier chapter, students who participate in different types of work experience are different based on observable characteristics, and these differences may also be related to unobserved differences such as ability, motivation, or maturity. Thus, having had experience of some type of work in senior cycle may not be the cause of a particularly positive or negative perception of schooling. Rather, young people who choose different types of work experience and who are led into different types of work experience may have some pre-existing differences and would have had these perceptions anyway. The next section now moves on to examine the actual job search strategies used by school leavers who were in employment at the time of the survey.

Job Search Strategies used by school leavers in employment

In her book *Working and Growing Up in America* Mortimer (2003) draws on both human capital and social capital frameworks and argues that part time job holding is a way to acquire both human and social capital, suggesting that part time job holding contributes to the acquisition of human capital in enhancing multiple dimensions of 'work readiness' (Mortimer: 2003: 25) and social capital through building relationships and networks that can provide access to information, social support and diverse other resources when needed. The job search literature has been particularly interested in the means used by school leavers to obtain employment upon leaving school, and it is generally recognised that school leavers use a mixture of different channels other than just personal contacts (Sexton et al.1988). Previous research in the Irish context and elsewhere suggests that the most common method of obtaining a job by school leavers is by means of personal or family contacts (Raffe 1985; Ashton and Maguire 1987; Sexton et al., 1988). More recently, academics have explored the possibility that part time job holding is a form of personal social capital that can be used in job search resulting in a form of 'social embeddedness' (Brinton and Kariya 1998) or 'private social capital' (Brinton 2000). Making a distinction

between different types of job search (the use of personal ties, using ones own initiative) Briton and Kariya (1998) posit that the use of personal ties in the labour market will be more common in most labour markets than using ones own initiative because on the labour supply side there are various reasons for individuals trying to help each other and on the labour demand side, employers can gain extra information and save on screening costs by following up personal recommendations. Furthermore, Raffe (1985) considers that employers who recruit through informal channels restrict information about vacancies to potential employees who have access to those channels. The literature also considers who uses different types of channels in job search. In his study of job placement among Scottish school leavers, Raffe (1985) observed that lower qualified school leavers in employment were likely to have found their jobs through *informal* channels, with employers recruiting through these channels making less use of qualifications as selection criteria. Brinton and Kariya (1998) hypothesised that in Japan that institutional ties are more common in contexts where employers seek high quality labour in which they will make a significant future investment and where schools reputations' are based on placing graduates into good jobs. Other than the finding that school based vocational education offers a smoother transition to the world of work, little research has been conducted on school organised work experiences. However, findings from the job search literature are based on the assumption that school leavers lack complete knowledge of employment vacancies and must rely on information obtained through other channels (Montgomery 1992). What then is the role of early work experiences acquired before leaving school? Are early work experiences closely linked to later job searches once school leavers are in the labour market?

Job search strategies used by school leavers have been characterised by those using (a) school and state support, (b) own initiative using newspapers, radio, internet and contacting private agencies (c) personal ties. 'Institutional ties' includes both state and school support in jobs search and within this category. The most common forms of institutional ties relate to the FAS service and work experience placements carried out at school, while in terms of atomistic or job search through ones own initiative, these were responding to advertisements in newspapers and radios and contacting employers directly.

Among school leavers who were in employment at the time of the survey, the majority used personal contacts to obtain employment, supporting previous research in the Irish context which suggest that the most common method school leavers used to obtain a job is by means of personal or family contacts (Sexton et al. 1988), followed by 'own intuition' and finally institutional ties. Just under 10 per cent used institutional contacts – school or state – to obtain their current employment. On the whole, a predominant feature of the results is the overwhelming informal nature of the means by which employment is obtained in the youth labour market. It would seem in the Irish context that institutional social capital – capital provided by the State through employment agencies and capital provided through the school – do not play such an important role in the Irish youth labour market (like US, unlike Japan).

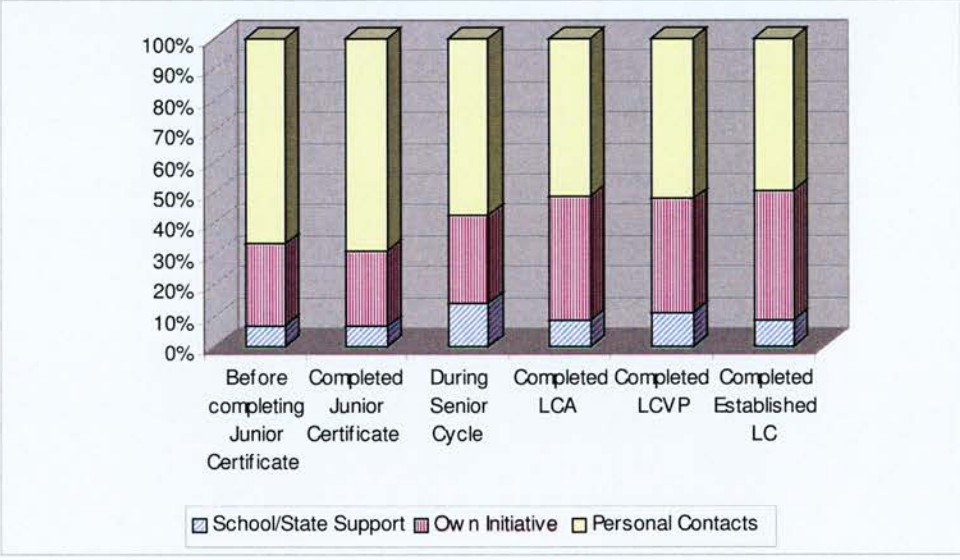
Table 8.18: Principal method of job search used by school leavers in employment by individual characteristics

	School/State Support	Own Initiative	Personal Contacts
Total %	**9.0 (82)**	**33.9 (308)**	**57.0 (518)**
Gender			
Male	9.8	25.7	64.5
Female	8.0	46.9	45.1
Cycle			
Junior Cycle	6.5	25.1	68.4
Senior Cycle	10.1	38.3	51.6
Stage left school			
Before Junior Cert	6.7	26.7	66.7
Completed Junior Cert	6.4	24.6	69.0
During Senior Cycle	14.2	28.4	57.5
Completed LC	8.4	42.2	49.4
Completed LCVP	11.0	37.0	52.0
Completed LCA	8.7	40.2	51.1
Local socio-economic disadvantage			
High	3.8	34.9	61.2
Medium	11.2	34.7	54.1
Low	10.0	34.5	55.6
Occupational Destination			
Managerial/Professional	17.3	36.5	46.2
Clerical	11.5	46.9	41.5
Service	5.7	26.7	57.4
Agriculture	13.3	24.6	60.0
Skilled/Semi Skilled	11.3	21.9	64.1
Other Manual	7.6	47.8	70.5
Unknown	4.5	34.5	47.8
Contract Type			
Non Standard Employment	2.8	36.1	61.1
Permanent Employment	10.0	34.2	55.8

Table 8.18 shows job search strategies according to gender, stage left school, highest educational cycle entered into, local socio-economic disadvantage, occupational destination and contract type entered into. What is evident is that a higher proportion of males are more likely to use personal contacts than females, while females are more likely to use their own initiative when job searching. Previous research in the Irish context suggests that males are more likely to enter into a family business,

which could explain this gender difference (Sexton et al. 1988). When educational qualifications gained at second level are taken into account, school leavers with lower levels of initial education are more likely to acquire their job through personal contacts than those with higher levels of education (see Table 8.8 below).

Figure 8.8: Job search method by educational attainment at second level



However, contrary to the expectation that school leavers use their part time jobs in job search methods, there was no significant association evident when the relationship between early work experiences and the method of job-search was considered for males or females. However, among senior cycle leavers, school leavers who had experience of a school organised work experience were more likely to have acquired their job at the time of the survey through social ties/personal contacts, while those without school organised work experiences were more likely (1.4 times more likely) to employment through their own efforts.

Table 8.18 also shows the methods by which school leavers in different occupational categories had found their jobs. Some types of jobs had very distinctive recruitment patterns (as reported also by Raffe in Scotland in 1988). These included agriculture and other manual occupations, while findings were more mixed among those employed in managerial/professional/clerical positions. The labour market segment in which school leavers found employment – primary/secondary - was also

considered (not shown here), but there was no evidence of a relationship between labour market segment entered into and job search methods. Table 8.18 also describes the distribution of job search method used among those in permanent versus non standard or atypical forms of employment contract. While no statistically significant association was evident, a higher proportion of those in permanent employment had obtained their job through institutional (school or state) support compared to those in atypical employment (10 per cent and 3 per cent respectively). Furthermore, a higher proportion of those in atypical employment had obtained their job through personal contacts than those in permanent employment (61 per cent compared to 56 per cent respectively).

A multinomial logit model (not shown here) was used to estimate the effects of gender, educational qualifications and school organised work experiences acquired in senior cycle on the probability of individuals finding their present job through institutional (state/school) versus personal ties, and the probability of finding their present job using own initiative versus personal ties. The results indicated that when these three variables were taken together, only gender could significantly differentiate job search strategies – that is, females were more likely than males to use their own job search/intuition rather than personal contacts.

Conditions of Employment of School leavers in employment at the time of the survey

Finally, the conditions of employment were considered among all school leavers who were working for payment at the time of the survey. The majority of school leavers who were working for payment at the time of the survey were involved in 'permanent' positions (see Figure 8.9). To consider the type of employment contract that school leavers in employment entered into, logistic regression analyses were applied to the data. The variables entered into the final model were chosen on the basis of a series of bivariate logistic regressions. The factors associated with non-standard employment at the time of the survey – were educational qualifications and work experience before leaving school (dichotomous variable) and working for a relative. Variables that did not contribute to the bivariate models were gender, month of interview, parental social class, parental employment situation, the number of

parents present, school type, the socio-economic deprivation score of the local authority area in which the school leaver lived and surprisingly the labour market segment. A variable indicating whether the young person had worked in that job since leaving school also did not contribute at a bivariate level.

Figure 8.9: Conditions of Employment by Educational Attainment at second level

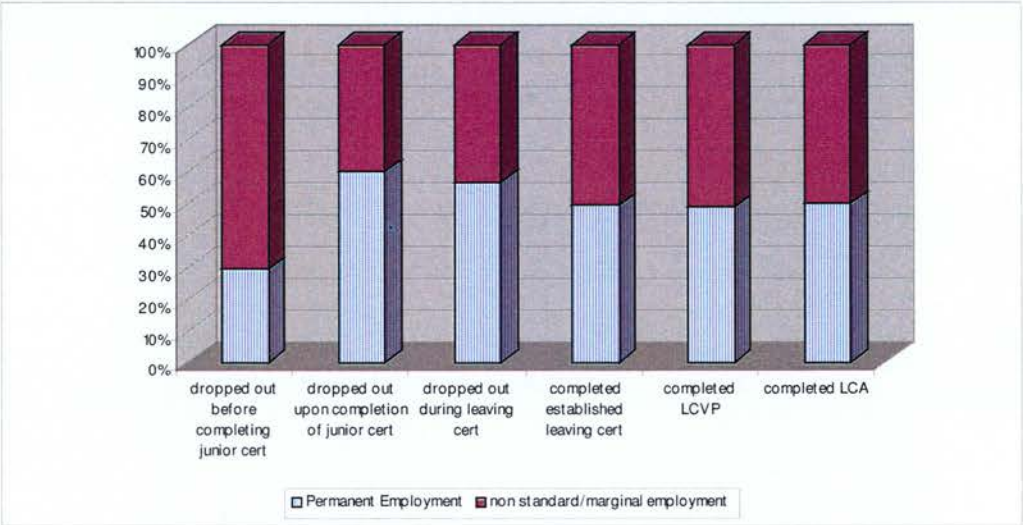


Table 8.19: Final Regression model predicting engagement with temporary employment as opposed to permanent employment at the time of survey

	B	S.E.	Sig.
Constant	-.920	.407	.024
Educational Qualifications			
Dropped out of school upon completion of	-1.221	.380	.001
JC	-.912	.417	.029
Dropped out of school during senior cycle	-.654	.333	.050
Completed established Leaving Certificate	-.536	.426	.208
Completed Leaving Certificate Vocational	-.569	.441	.197
Completed Leaving Certificate Applied			
Ref: Dropped out before completing JC			
Experience of work before leaving school	-.392	.233	.092
Yes			
Ref: No			
Working for a relative?	.570	.315	.071
Yes			
Ref: No			

The results indicate that early leavers and those who completed the Leaving Certificate were less likely to be in temporary employment than those who dropped out of school without any qualifications. While it did not reach statistical significance, school leavers in employment with experience of any type of work experience before leaving school were less likely to be employed in temporary employment as opposed to permanent employment

8.7 Summary and Conclusions

Understanding factors that are associated with labour market outcomes is an important element in understanding the institutional context of school to work transitions in Ireland as well as the consequences of structural opportunities and constraints on those outcomes. The aim of this chapter was to determine the influence of early work experiences on the labour market outcomes of a cohort of Irish school leavers. While the key variable of interest at the individual level has accordingly been the role of early work experiences in achieving a smooth transition into working life in the Irish context, another variable of interest has been the role of initial education, in particular the curricular track being pursued.

In the sociological study of how jobs are allocated in the labour market, the general assumption is that labour markets are embedded in a wider social structure (Harslof 2006). A number of studies have placed emphasis on individual action, human and social capital resources and the wider institutional structure in explaining the structure of labour market careers (Canny 2001; Gangl 2002; Müller and Gangl 2003; Russell and O'Connell 2001) while others have also placed emphasis on employer uncertainty[71] (Korpi et al. 2003) and employers recruitment strategies (Harslof 2006; Jackson 2001; Raffe 1985; Strathdee 2001; 2005). It is generally agreed that an individuals' education, work experience or social networks are important resources with effects on transition processes at all stages of labour market careers, but that transition outcomes also reflect market processes. Therefore, individual decisions and the value of acquired resources will partly be framed by and

[71] Korpi et al (2003) regard the turbulence during the initial stages of labour market careers as the result of uncertainty on the part of employers as to whether graduates from the educational system possess the skills necessary to do the job.

depend on the wider structural conditions in the labour market (Gangl 2000). In her book *Working and Growing Up in America* Mortimer (2003) draws on both human capital and social capital frameworks and argues that part time job holding is a way to acquire both human and social capital, suggesting that part time job holding contributes to the acquisition of human capital in enhancing multiple dimensions of 'work readiness' (Mortimer: 2003: 25) and social capital through building relationships and networks that can provide access to information, social support and diverse other resources when needed. Until recently, the influence of early work experiences on labour market outcomes has largely been omitted from empirical analyses of earning equations that have their roots in the theory of human capital[72] (for example see Rosen 1977; Mincer 1974 and Becker 1964). For the most part, the Irish literature replicates findings from the international literature. While the findings of international studies of part time employment and educational outcomes are mixed (see previous chapter) the results pertaining to employment outcomes are more clear cut (Rhum 1997). The literature review outlined the plethora of studies which empirically demonstrate that having a part time job during school is associated with elevated rates of future job holding and increased earnings (Stevenson 1978; Stephenson 1981; Marsh 1991; Rhum 1997; Hotz et al., 2003; Light 1999, 2001; Michael and Tuma 1984). However, the point was made that the relationship between student employment and future outcomes could result from unobserved confounding factors rather than being due to any causal effect of the work itself. That is, the relationship may be spurious and as a result the estimated effects of early work experience on labour market outcomes may reflect the persistent role of unobserved or hard to measure differences in initial skills, ability and/or familial connections that influence both the likelihood that youth acquire early work experience and the degree of labour market success later in life (Hotz et al., 1999; Meyer and Wise 1982).

[72] Light (1999) has argued that conventional earnings functions do not control for work experience undertaken while still at school, meaning that the estimates of the return to schooling include the benefit of work experience gained along the way. Using NLSY data, she found that the estimated coefficients of wage models without controls for part time job holding are 25-44% than when part time job holding is controlled for, concluding that conventional models 'overstate' or exaggerate the wage effects of part time employment. The implication is that traditional models of human capital that are consistent with those of Ben Porath (1967) which assume that 'learning' is the only skill enhancing activity to take place during the school phase of the life cycle actually capture the skill-enhancing effects of extra-curricular activities. Therefore, Light suggests that we should interpret the effect as the wage benefit of skills gained in the classroom plus skills gained concurrently via on-the-job training or other work undertaken.

However, studies that have considered this selection bias conclude that part time job holding has favourable effects on later labour market outcomes (Rhum 1997).

The primary aim of this chapter was to examine the influence of early work experiences on early labour market outcomes and to consider if the acquisition of early work experience plays a favourable role among entrants to the labour market. In doing so, three sets of research questions were addressed. The first set of research questions addressed the number of months spent in employment since leaving school. The specific research questions asked were;

- Are early work experiences likely to contribute to a lower risk of unemployment in the months after leaving school? Is this the case for all early work experiences?
- To what extent is time spent in employment influenced by early work experiences undertaken before leaving school, even when controlling for differences in education levels completed in second level and other individual level characteristics?

The second set of research questions addressed the principal economic status of school leavers at the time of the survey, asking

- What is the influence of early work experiences on the primary economic status of school leavers at the time of the survey?

Finally the third set of research questions addressed the ways in which employment was obtained, the nature of employment carried out, the segment in which the occupation is located in the labour market and the conditions of employment. The specific research questions were;

- What is the influence of early work experiences on the job search strategies of school leavers?
- What is the influence of early work experiences on the conditions of labour market entry among school leavers?

The following section now provides an overview of the main findings.

Early work experiences and intensive periods of activity

The empirical analyses began by introducing the reader to the institutional context of the economic activities of a cohort of Irish school leavers. The analyses sought to both illustrate and describe school leavers time use from July 2001 (a month after leaving school) until February 2003 (the time of the survey), paying particular attention to educational qualifications and early work experiences. With respect to the relationship between early work experience and intensive periods of activity in the labour market, the variance components multinomial regression model (Table 8.2) indicated that those who left school with an established Leaving Certificate or a Leaving Certificate Vocational Programme were less likely to experience unemployment than those who left school before completing the Junior Certificate. Furthermore, those whose parents had higher levels of education were also less likely to experience unemployment. There was some evidence to suggest that students attending community/comprehensive schools were more likely to experience small periods of unemployment than those who attended secondary schools. In relation to early work experience, even when accounting for individual and school level characteristics, the analyses indicated that school leavers who had a part time job before leaving school were less likely to experience unemployment than those who did not have any work experience before leaving school. Furthermore, those who had experience of both part time jobs and school organised work experiences were less likely to experience longer amounts of unemployment than those without any work experience. These findings suggest that work experience other than school organised work experience on its own may contribute to a lower probability of spending intensive amounts of time in unemployment. When the transition from employment into unemployment was considered, the findings suggest that any experience of work before leaving school has a positive effect on avoiding the move from employment into unemployment. However further analyses indicated that early work experiences could not reduce the likelihood of moving from employment into unemployment for non-college bound youth, particularly when regional characteristics were taken into account. That is, early work experience *per se* cannot deter the move from employment to unemployment or the 'risk' of unemployment early in the transition.

Early work experiences and determinants of economic position at the time of the survey

This section began outlining the distribution of economic positions among all school leavers, according to gender and educational qualifications attained before leaving school, indicating that positions are stratified according to gender and educational qualification reached. Furthermore, marked gender differences were found in relation to the destination of school leavers 20 months after leaving school when early work experiences that had been undertaken before leaving school were taken into account. Among all school leavers, having an early work experience of any kind before leaving school has a greater influence on male destinations than female destinations, even when accounting for a range of other factors. Males who had an early work experience were less likely to be in training/apprenticeships than in employment and male school leavers who had an early work experience were less likely to be unemployed at the time of the survey than in employment, even when accounting for a range of factors. It is important to note however that the choice to participate in work during second level, the decision to leave school and the decision to have an early work experience before leaving school are likely to be intertwined. This endogenity problem complicates the attempt being made here to evaluate a causal effect between work experiences undertake before leaving school and post school destinations. Thus, a conclusion that exposure to the world of work can often have an adverse effect on males by reducing their propensity to enter into further education or training, by enhancing their propensity to enter the labour market may not be true due to selection effects.

In order to reduce unobserved heterogeneity, junior cycle leavers were considered separately. Among junior cycle leavers, males who had experience of a term time job holding before leaving school were also less likely to be in training/apprenticeships than in employment. On the other hand, junior cycle leavers who did not work in term time jobs intensively before leaving school (those who did not have a term time job and those who had a term time job in just one year in junior cycle) were more likely to be unemployed at the time of the survey than in employment. Again, there is a certain difficulty in interpreting this result due to the many selection effects in

operation. Among senior cycle leavers, term time job holders in senior cycle were less likely to be students than to be in employment and while this was true for males and females, the impact was marginally stronger for males. However, when term time job holding in junior cycle was taken into account, males who had a term time job in 2 years of junior cycle were less likely to be students than to be in employment but this was not true for females. Among senior cycle leavers, females who had experience of both types of early work experiences were less likely to be unemployed than employed and this effect persisted even when term time job status in junior cycle was taken into account.

Early work experiences, perceptions of education, job search strategies and conditions of employment among those in employment at the time of the survey

Among school leavers in the labour market educational level attained at second level seemed to have an influence on the perception of education/training as being useful or very useful in terms of promoting work related competencies such as interpersonal communication skills and computer skills/abilities. School leavers who had experience of both part time jobs and school organised work experiences or school organised work experiences only, were more likely to have perceived their education/training as being more useful in developing these competencies. It is important to note however that the choice to participate in work during second level and measures of the perceptions of schooling are likely to be intertwined. This endogenity problem complicates the attempt being made here to evaluate a causal effect between work experiences undertake and perceptions of schooling. As was outlined in an earlier chapter, students who participate in different types of work experience are different based on observable characteristics, and these differences may also be related to unobserved differences such as ability, motivation, or maturity. Thus, having had experience of some type of work in senior cycle may not be the cause of a particularly positive or negative perception of schooling. Rather, young people who choose different types of work experience and who are led into different types of work experience may have some pre-existing differences and would have had these perceptions anyway.

How did school leavers obtain their employment? Does the acquisition of early work experiences contribute to a greater use of personal networks in the job search process? The final analyses considered the job search strategies of school leavers in employment according to a range of factors, indicating that the majority of school leavers in employment used personal contacts in obtaining that employment, while very few used institutional contacts such as the school or the state to obtain their employment. Males were more likely to use personal contacts than females, while females are more likely to use their own methods in job searching. Furthermore, the least educated workers (junior cycle leavers) were also more likely to acquire jobs through personal contacts or social ties. Some types jobs had very distinctive recruitment patterns, particularly agricultural workers. While females in managerial/professional/clerical positions had found jobs through their own efforts, males were more likely to obtain these occupations through personal contacts. Surprisingly, the analyses revealed that participation in early work experiences does not have an impact on job search methods. However junior cycle leavers who did not have a part time job were somewhat more likely to use institutional ties than personal ties, while senior cycle leavers who had experience of school organised work experience were more likely to have acquired their job through social ties while those without were more likely to find employment through their own efforts. Finally, the conditions of employment among those in employment at the time of the survey were considered through the employment contract. The results indicated that school leavers with any type of work experience were somewhat less likely to be employed in temporary contracts as opposed to permanent contracts. The following chapter summarises the findings from each of these chapters.

Chapter 9: Discussion and Policy Implications

9.1 Introduction

The main interest of this dissertation has been to arrive at a more appropriate understanding of the role of early work experiences before leaving school, alongside the individual, structural and institutional determinants of successful school to work transitions in Ireland. In particular, I have sought to identify how different types of early work experience acquired before leaving school influence education and labour market outcomes, relative to those who have no such experience. That is, this dissertation has aimed to examine the characteristics of a representative sample of school leavers according to their participation (or not) in early work experiences before leaving school – through part time jobs and/or school organised work experiences – and to examine if and how these different types of work experience are beneficial for education and labour market outcomes. The analyses are guided by a theoretical framework outlining 'allocative' and 'developmental' theories relating to early work experiences. The approach used has been to use conventional regression techniques to explore these relationships but in addition, analyses[1] have been conducted in both a fixed effects and variance components framework[2]. The main methodological issues encountered in the thesis relate to the estimating the influence of school effects, but also of issues related to selection bias. In addressing selection bias, the dissertation has offered examples of where studies have taken into account selection bias and adjusted for selection bias using econometric techniques.

Some of the analyses in this dissertation have used econometric techniques to correct for selection bias (propensity score matching, Heckman two-step estimation) and a discussion is presented with each of the analyses regarding the possible biasing

[1] Based on the recommendations of the examiners, all models in Chapters 5, 6 and 7 have been estimated in Mlwin using a two level random intercept model. Table 8.2 has been re-estimated in a variance components framework using STATA given that difficulties were encountered re-estimating this model in Mlwin. Table 8.2 is the single table in Chapter 8 that has been estimated in a variance components framework.

[2] While previous drafts of this dissertation has presented both fixed effects and variance components estimations, the findings presented in this draft have been estimated using the Mlwin random intercept models as recommended by informal supervision I was offered to finalise the dissertation.

effects of unobserved confounding variables, as recommended by Rubin (2006)[3]. Not all of the analyses have adjusted for selection bias. The recommendation was to use Mlwin to estimate the models in a random intercept/multilevel framework. However, adjustments for selection bias are achieved through estimations using STATA. What was particularly interesting was that when a model was estimated in a two level random intercept model using Mlwin and the findings were then compared with the same model estimated in STATA using the variance components function, the estimations did not always produce the same results. This is likely due to the different algorithms used in these two packages. Discrepancies were particularly evident in relation to the significance of the coefficients relating to local area characteristics. Because the *vce* function in STATA does not allow one to produce estimates of school level random effects, it was deemed more appropriate for the sake of consistency to estimate models in Mlwin, but to run key models using STATA to allow for adjustments for selection bias[4].

As pointed out in the introductory chapter, early work experiences acquired before leaving school are of particular interest because of high levels of participation in part time job holding among young people attending second level education. The focus on different types of work experiences that young people engage in before leaving school is of particular interest because of increased differentiation in the senior cycle curriculum, and the provision of school organised work experiences at upper senior cycle. It is also interesting in the current context of specific labour market conditions which provide favourable circumstances for work opportunities both during and upon leaving school.

The main theoretical models concerning the area of early work experiences acquired before leaving school were broadly divided under two headings; 'developmental' and 'allocative' explanations, but were also cross cut by theories relating to curriculum differentiation. The 'developmental' explanations relate early work experiences to

[3] While knowledge of how to estimate such models have now been acquired, it is the intention that these issues will be explored in more depth in possible publications in the course of postdoctoral studies.

[4] This recommendation was arrived at after a discussion with Emer Smyth at the ESRI and Cristina Iannelli at the Centre for Educational Sociology.

the acquisition of human capital formation, particularly in terms of occupational formation, thinking about the future, and the acquisition of knowledge and skills that are recognisable in the labour market. Indeed, a key question in this dissertation considers whether early work experiences represent a form of human capital. Allocative explanations on the other hand are concerned with explaining the role of education and early work experience in allocative processes in labour market entry. Rather than generating detailed hypotheses, these two approaches were used to guide the empirical analyses carried out, particularly in Chapters 6, 7 and 8. Furthermore, separate literature reviews in each empirical chapter was deemed a more appropriate structure for the dissertation than a single review at the beginning.

In many of the analyses, the key variable of interest at the individual level has accordingly been the type of work experience that was undertaken. In the analyses I have been interested in how the variables measuring early work experience behave when other important variables known to have a substantial influence on the transition from school to work; such as social class background and other socio-economic background variables; are used to predict outcomes. Furthermore, because of the hierarchical clustering of the data - pupils within schools – analyses have been estimated in a multilevel framework and key contextual variables of interest have been characteristics of the school attended (gender mix, average socio-economic student intake, whether the school offers a differentiated curriculum at senior cycle and school type attended) and the local area in which school leavers live. In doing so, the empirical analyses of the dissertation began by considering the characteristics of young people who complete different programmes in senior cycle. The second empirical chapter then considered the distribution of early work experience according to gender, family socio-economic status, parental highest level of education (as a measure of family cultural capital), household employment situation and family structure. In addition, 'contextual' variables included school and local area characteristics. Chapter 7 and chapter 8 then considered the influence of these early work experiences on short-term education and labour market outcomes when accounting for individual and school level characteristics. Institutionally, the interest has been on how different types of early work experience (whether it be part time

jobs or school organised work experiences) relate to curriculum differentiation at upper senior cycle, that is, with the provision of the Leaving Certificate Applied, the Leaving Certificate Vocational Programme and the established Leaving Certificate. This final chapter summarises the main findings and conclusions in relation to these issues as well as analysing the findings in a comparative perspective. Finally, some considerations about the implications of the thesis result in practice are discussed.

9.2 Youth, work and schooling: an overview

Chapter 2 offered an overview of the position of children and young people in relation to education and work from the 1800s to the present day as a wider social context of young people's activities in terms of education and work, and outlined the development of combinations of learning and working in the second level system in Ireland since the 1970s. Because studies of the economic position of children and young people in nineteenth and twentieth centuries are generally lacking in the literature, I used child labour legislation and Census reports to add to our knowledge, thus contributing to knowledge on a much under-researched area. This chapter also offered an historical account of the development of school based vocational education, leading to the current provision of programmes offering school organised work experiences. This chapter was deemed an important context for the study of early work experiences on education and labour outcomes for a number of reasons. Firstly, an overview of the historical position of children and young people in relation to education and work activities offers an account of how the structure of the education system today came about. The dissertation often points to unfavourable outcomes from participation in vocational schools and this chapter offers reasons as to why the legacy of participation in vocational schools may persist. Because of the focus on school organised work experience in this dissertation, it was also deemed important to outline the development of programmes leading to the provision of work in the curriculum. Secondly, and importantly, in offering an historical account of the development of the education and work activities of young people, it outlines that the combination of education and work is not a relatively recent phenomenon in the Irish context, and that the balance of the combination has changed over time.

9.3 Ireland in comparative aspect

The main research question being addressed in Chapter 3 asked how participation in early work experiences – that is, in part time jobs and school organised work experiences – among young people in Ireland before leaving second level education compare to other institutional contexts. Chapter 3 provided an overview of the occurrence of early work experiences according to the various institutional contexts within the OECD countries, that is, according to the set up of their education and training systems. I proceeded to ask whether the opportunities to engage in early work experiences before leaving school differs across OECD countries according to the set up of their education and training systems, on the assumption that rates of part time job holding are higher in systems where general education pathways are considerable. The data obtained from OECD suggests that participation in part time job holding is higher among young people in education systems with about 50 per cent in general education, that is, it is quite possible that young people's experiences of work before leaving school differs across institutional contexts. However, there are two reasons for a lack of data pertaining to the work activities of young people while at school. Firstly, most countries begin collecting labour force data for those aged sixteen and over and so miss out on the school population. Secondly, most countries do not collect data on double status positions (see arguments by Hakim 1998).

9.4 Differentiation at Upper Senior Cycle

A much under-researched area in the Irish context has been the provision of vocational type education at senior cycle, and its consequences for post school outcomes. Given that a developed body of literature exists in the international context surrounding curriculum differentiation (see for example Oakes 1985; Laureau 2000; Ainsworth and Roscigno 2005) this chapter has addressed the relative lack of knowledge regarding the characteristics of young people pursuing different programmes at upper senior cycle. The chapter began by offering an overview of the Irish education system. What was particularly interesting was the rise in participation levels in programmes offering an alternative to 'academic' education. To illustrate, Figure 5.2 outlined that the percentage of school leavers leaving school without any

formal qualifications or a Junior Certificate has steadily declined since the 1980s, but that this decline has been accompanied by an increase in completion of second level education, with recent trends pointing to an increase in the uptake of the Leaving Certificate Vocational Programme and Leaving Certificate Applied and a slight decrease in Leaving Certificate (established). While the established Leaving Certificate is much more academic in nature, the Leaving Certificate Vocational Programmes aims to target those who wish to complete second level education but who need vocational training to enhance their prospects for gaining employment or further education and training. The 'pre-vocational' Leaving Certificate Applied aims to target the needs of students who are not adequately catered for by other Leaving Certificate programmes or who choose not to opt for such programmes.

Chapter 5 considered curriculum differentiation at upper senior cycle in a framework of classical theoretical perspectives pertaining to school-to-work linkages and the reproduction of dominant stratification arrangements. The theoretical rationale for providing vocational type programmes with a work experience element at second level education is that vocational involvement can benefit students by offering skills that will be of value in the labour market, thus, offering a developmental approach to the provision of vocational type programmes and the work experience element of such programmes. On the other hand, theories of class differentiation (Shavit and Kraus 1990, Bowles and Gintis 1976; Bourdieu and Passeron 1990) argue that differentiation is a mechanism for the reproduction of educational inequality across generations; that is, lower class students are typically placed in lower tracks, which in turn, reduce their chances of attending university and entering professions and other high prestige occupations (see for example Gamoran and Mare 1989; Arum and Shavit 1995). The empirical analyses addressed the issues of differential involvement and potential inequality in the schooling process, and focused strictly on those who completed senior cycle to ensure a comparison of like with like. Methodologically it was noted that young people who have completed second level education are a specific sub-sample and that they are likely to differ in characteristics both observed and unobserved relative to those who drop out of school before completion of second level education. That is, there is likely to be sample selection bias in the analyses in relation to selection into

completion of senior cycle. The implication of this is that students displaying more advantaged characteristics are more likely to complete second level education.

A multilevel multinomial model included a number of individual level characteristics such as gender, parental social class background, parental education levels, family structure, parental employment, participation in Transition Year and measure of local area socio-economic deprivation. In addition, school level characteristics were entered into the model. Consistent with the expectation that participation in vocational type programmes may reproduce inequalities, results indicated that students from higher socio-economic backgrounds were less likely to be associated with vocational type programmes (LCA and LCVP) than the established Leaving Certificate. There was also some evidence to suggest that those who pursue the Leaving Certificate Vocational Programme and those who complete the established Leaving Certificate bear a stronger resemblance to each other than those who complete the Leaving Certificate Applied. The strong effect of parental education on track destination indicated some degree of intergenerational mobility but mobility to a 'lower' track rather than a track that is indicative of entry to third level education. It was outlined that an important stage in the process is the choice of schools that qualify students for different post secondary education tracks that lead to a third level. It was hypothesised that parents with weaker educational backgrounds may be less confident and consider teacher recommendations to a lower track as more binding than parents with higher educational background. Better educated parents may be in a stronger position to extract information about their childs' potential and decide for a higher track despite a negative recommendation from the teacher (Dustmann 2004), pointing to the role of parental involvement in the decision making processes at second level, but also to parental knowledge and parental value placed on the education system (Byrne and Smyth, forthcoming). However, it was also outlined that there are some limitations to these analyses of who gets assigned to tracks. Based on Irish and international research, certain characteristics that are known to determine track allocation were not available in the data, particularly previous educational attainment as outlined Irish and international studies of curriculum differentiation (see Smyth et al., 2007; Gamoran 1992; Gamoran and Mare 1989; Hossler et al., 1999; Delci and Stern 1999; Zietz and Joshi 2005). The

absence of such key variables may be likely to over-estimate some factors such as parental background. Furthermore, these unobserved variables may also influence the post school outcomes of young people who pursue different tracks at second level education. While earlier fixed effects models of the characteristics of young people who pursue different tracks suggested that completion of tracks at senior cycle are stratified by local area characteristics, the analyses presented in this draft of the dissertation suggests that the influence of local area characteristics no longer exists. Furthermore, the school average socio-economic intake of students was a key determinant of pursuing different tracks at senior cycle.

9.5 Participation in early work experiences

This chapter has been primarily concerned with questions relating to Who works? When do they work? and What type of work is undertaken. In doing so, the relationship between individual and school level characteristics and participation in early work experience was examined. The chapter began by offering a descriptive overview of the early work experiences of school leavers. While labour market entry for young people is a transition process of which it is difficult to say when it really starts and when it ends, this dissertation illustrates how early work experiences undertaken before leaving school fits into the life course, indicating that young peoples work experiences before leaving school are both intensive and extensive. An underlying assumption in the dissertation is that entry into the informal labour market may have consequences for entry into the formal labour market. On this note, what has not been clearly pointed out in other studies of part time job holding is that the transition to work, and the occurrence of double status positions, begins at an early age for Irish school leavers – that is from 1st year onwards. While there was little evidence of heavy investment in part time job holding for multiple years through junior cycle, the descriptive results indicate that there is a *gradual* entry into the labour market, during which young people are simultaneously both students and workers. It was also evident that some students worked in part time jobs more consistently than others, which could be interpreted as a successful juggling of the worker and student roles, although this was the case for a very small proportion of school leavers who followed through for the whole of secondary education.

However, levels of part time job holding tended to be high among those who dropped out but also among those who completed second level education. In general, part time job holding rates are higher in the senior cycle education stage, where young people are lawfully permitted to engage in employment. However, among junior cycle leavers, that is, young people who left second level education before completing the Junior Certificate examination, rates of part time job holding in each of the years of junior cycle were considerably higher than for those who completed senior cycle. Among senior cycle leavers, that is, school leavers who left school during senior cycle, participation in part time jobs at an early age was much less common, but when it did occur, it was more common among Leaving Certificate Vocational Programme students, suggesting that these young people could be more orientated to work than others. In terms of school organised work experiences, combinations of learning and working are provided in the curriculum in Ireland through the Transition Year programme and the LCA and LCVP programmes. Descriptive results indicated that a substantial proportion of senior cycle leavers have a school organised work experience before leaving school (53 per cent). The latter statistic illustrates that the Irish educational system is currently providing a considerable percentage of students that pass through the second level education system, with links to the world of work. The research also pointed to differential levels of uptake in school organised work experience across programmes offering school organised work experience in senior cycle. Levels of uptake were highest among Transition Year and Leaving Certificate Applied students while levels were significantly lower among Leaving Certificate Vocational Programme students. This is most likely because LCVP students have a choice of vocational modules that can be pursued other than work experience, however, it does raise questions about the nature of vocational training that the programme provides.

Three theoretical explanations for participation in early work experience were offered from the literature. The first explanation argued that participation in part time jobs is dependent on gender, ability and unobserved characteristics such as motives or aspirations for young people, particularly for males. The second explanation focused on the role of parental values on the creation of human capital in young

people, that is, parental influence on the decision to have a part time job; while the third considered the push and pull from the labour market and focused on the role of characteristics of the local area in which young people live as a key determinant.

The empirical analyses proceeded then in three steps. The first set of analyses considered the uptake of early work experiences among junior cycle leavers and senior cycle leavers in junior cycle. Analyses pertaining to the probability of having a part time job in junior cycle for junior cycle leavers and senior cycle leavers displayed considerable differences in the characteristics of young people who held part time jobs in junior cycle. We saw from the analyses that among junior cycle leavers, males and those living in households with full parental employment were more likely to work while among senior cycle leavers males and those whose parents have lower levels of education were more likely to work. The role of sample selection bias was also considered in that students who progress to make the transition from junior cycle to senior cycle are likely to display more advantaged characteristics, and that there are likely to be some unobserved variables that exist which may influence a young person to make the transition from junior cycle to senior cycle (and so the probability of being in the sample), but these unobserved characteristics may also influence the decision to have a part time job in junior cycle such as motivation, ability or maturity. Among senior cycle leavers, the proportion of students who had a part time job in junior cycle varied across schools even when individual and school level characteristics were taken into account.

The second set of research questions then considered when young people work at different stages of second level education and what type of work do they engage in – part time jobs or school organised work experiences, both or none. Analyses were confined to those who completed second level education and so again it was noted that there is likely to be some sample selection bias given that unobserved variables that exist which may influence a young person to make the transition from junior cycle to senior cycle and completion of senior cycle (and so the probability of being in the sample), but these unobserved characteristics may also influence the decision to have a part time job in any of the years of senior cycle. The analyses regarding

when students work revealed substantial class differences in part time job holding across second level education. While students whose parents have higher levels of education are less likely to have part time jobs at all stages of second level education, students from lower social class backgrounds, particularly those from skilled manual backgrounds tend to be more likely to hold part time jobs than those from professional class backgrounds. These findings indicate that parental attitudes towards work may vary across social groups. Furthermore, school variation was generally accounted for when school characteristics were included in the model suggesting an effect of school policy but also a peer influence effect. There was no evidence to suggest a push or pull from the labour market as local area characteristics did not reach significance. Based on Colemans' view of the role of social capital in the production of human capital, it was expected that parental socio-economic background and parental education level would be strong predictors of the acquisition of early work experiences. However, the effect of these variables may be over-stated because of the omission of important variables such as previous educational attainment or orientation towards schooling. A key recommendation of this study is that in order to evaluate the merit of various treatments using the Irish School Leaver Survey such as part time job holding or participation in different curricula at second level or Transition Year participation that data relating to the previous educational attainment of young people be collected.

The second set of empirical analyses in Chapter 6 considered the determinants of having a school organised work experience separately for those who participated in the Transition Year programme, the Leaving Certificate Applied and the Leaving Certificate Vocational Programmes. The analyses indicated considerable school variation in the proportion of students who had a school organised work experience even when individual and school level characteristics were taken into account. Individual level variables could not differentiate those who had a Transition Year work experience from those who did not, but there was some evidence to suggest that Transition Year students who had a part time job in junior cycle were more likely to opt for a Transition Year school organised work experience. Furthermore, there was some evidence to suggest that secondary schools may have stronger links with employers than vocational schools and so face less difficulties in

placing students in work experience placements. However, a number of sample selection bias problems were not estimated in this model and it was deemed necessary to consider for future analyses that only students who participated in these programmes are considered in these analyses and so unmeasured variables may affect both the dependent variable and the probability of being in the sample. This may account for why few of the individual level variables reached significance. Similar findings and conclusions were evident in relation to Leaving Certificate Applied work experience and Leaving Certificate Vocational work experience.

The final set of empirical analyses in Chapter 6 considered whether different types of students engage in different types of work experience. Again, these models were considered in a multilevel framework given the influence of school policy on the probability of having a school organised work experience. The findings indicated that gender and parental social class background were key determinants of having different types of work experience before leaving school. In relation to gender the findings indicated that males are less likely than females to have gained experience of part time jobs are more likely to have a SCHWK relative to gaining no work experience at all, suggesting that school organised work experience may help males who have no linkages to the labour market. In relation to social class background, students from lower social class backgrounds are more likely than those from higher social class backgrounds to have gained experience of either part time jobs or school organised work experience than have no work experience at all. Furthermore, students from a non manual background are more likely to have participated in both part time jobs and school organised work experience than have no work experience at all. These findings indicate that school organised work experience caters for a certain type of student. Reinforcing the influence of parental networks on young peoples' probability of having access to work, students from households will full parental employment are more likely to have a part time job or both a part time job and a school organised work experience than have no work experience at all. Furthermore, there was an effect of local area characteristics; students living in areas of moderate socio-economic deprivation were less likely than those living in areas of low socio-economic deprivation to have experience of school organised work experience relative to none. While students living in areas of high socio-economic

deprivation were less likely to have had experience of both than no work experience relative to those living in areas of low socio-economic deprivation. As expected school level characteristics were also key determinants of having different types of work experience.

9.6 Outcomes of early work experiences

The final two empirical chapters considered the outcomes of early work experiences. The next section considers education outcomes.

9.6.1 Education Outcomes

Wider theories of educational attainment argue that family background and mental ability are considered to be the ultimate causes of educational attainment (Blau and Duncan 1967, Sewell et al., 1970). Some argue that there is a casual mechanism that relates individual expectations and aspirations of the future to the social contexts that generate them. That is, peer expectations are internalised and in the process, these expectations become individuals' own aspirations, which then compel achievement motivation. On the other hand, critics this status attainment perspective argued that structural constraints such as the allocative functions of schools (Collins 1979) or the stratification of opportunity (Bourdieu and Passeron 1977; Bowles and Gintis 1976) should be at the centre of all models of educational attainment, and hence that concepts such as aspirations and expectations offer little or no explanatory power. (Remember that Chapter 5 demonstrated significant school level variation in the probability of pursuing a vocational type track at senior cycle relative to an academic track). Furthermore, Bourdieu (1973) dismissed all work that asserts that associations between aspirations and attainments are causal. Rather, for Bourdieu, the unequal opportunity structures of society 'determine aspirations by determining the extent to which they can be satisfied' (Bourdieu 1973:83). And, as such, aspirations have no autonomous explanatory power because they are nothing other than alternative indicators of structural opportunities and resulting attainment. The developmental literature has focused on the role of the family, the school and the peer group for the socialisation of young people and orientation towards work. These findings were somewhat supported from the previous chapter on the determinants of having a work

experience has suggested that there is significant school variation in the proportion of young people who have a part time job in examination years (among those who complete second level education), suggesting a school effect in the behaviour of young people in examination years.

The primary aim of Chapter 7 has been to examine the relationship between early work experiences and education outcomes. In doing so, four educational outcomes or dependent variables were considered; (1) retention and progression in second level education, (2) curricular track being pursued at senior cycle (3) examination performance and (4) time spent in education in the 20 months since leaving second level education.

In the first set of analyses I established evidence for the influence of part time job holding in 1st year on educational progression through second level education using both conventional regression techniques and applying econometric methods to adjust for selection bias. When individual and school characteristics are taken into account, and matching techniques estimated, for any progression level, school leavers who had a part time job in 1st year were less likely to progress through second level education than those who did not.

The second set of analyses considered the role of part time job holding in junior cycle in channelling young people into different curricular tracks has led to some very interesting results. As expected, these analyses suggested that among students who complete second level education, students who had a part time job in 1st year are more likely to drop out in senior cycle (as expected based on findings from the previous section) but were more likely to complete the Leaving Certificate Applied than complete the established Leaving Certificate. Matching techniques have not been applied to these analyses, so while the findings suggest that among those who enter senior cycle, young people who have a part time job in 1st year are more likely to either drop out of senior cycle or end up pursuing the Leaving Certificate Applied, we cannot be sure that this is a causal effect. As before, difficulty in determining the true impact or influence of part time job holding early in junior cycle has on drop out arises largely because the decision to drop out is endogenous. That is, this standard multinomial model may fail to disentangle part time job holding in 1st year/3rd year effects from pre-existing differences among

students. Ideally, the data would contain measures of ability or educational aspirations. Based on the analysis conducted above, a matching technique may reveal that little bias is present, indicating that there are only very small differences between students who have a part time job in 1st year and those who do not. If this is the case, a tracked system may reinforce these differences.

Furthermore, this chapter then considered whether differences retention exist according to the types of early work experiences undertaken by school leavers before leaving school using the typology of early work experience. As expected, gender, parental education levels and school type were all determinants of retention. Only students who held a part time job in senior cycle were less likely to drop out than those who had no work experience in senior cycle. Recalling the analyses in Chapter 6 on the determinants of having different types of work experience, students who had experience of part time jobs only tended to have favourable characteristics than those who had no experience. Again, we see that there may be possible selection bias in the model. That is, there may be unobserved variables which influence both the determinants of having different types of work experience at senior cycle which also influence the decision to drop out of school.

Much of literature on the relationship between part time job holding and examination performance reports conflicting findings. Based on previous research conducted in the Irish context, the expectation was that part time job holding would have a negative influence on examination performance in the Leaving Certificate. However, when individual and school level characteristics were taken into account, there was no effect of having a part time job in 6th year – the year of the examination. Furthermore, there was no effect of having a part time job in any years of second level education when individual and school level characteristics were taken into account suggesting that the effect of part time job holding on examination performance is not dynamic. When all types of work experience undertaken during senior cycle education, Model 10 of Table 7.16 indicated that there is no effect from any type of work experience under taken in senior cycle on performance in the Leaving Certificate examination.

Finally further participation in education upon leaving school was considered in relation to early work experiences. While individual and school level

characteristics were key determinants of the amount of time spent in further education upon leaving school, school leavers who had experience of part time jobs only while in school were more likely not to experience further education relative to intensive periods of further education over the time period. However, this group were also more likely to spend shorter periods of time in education (7-12 months) rather than intensive periods of time in education.

Contrary to the zero sum model, part time job holding during second level education and other early work experiences do not seem to have an influence on examination performance in the Leaving Certificate. These findings suggest that among Leaving Certificate and Leaving Certificate Vocational Programme students those who complete second level education successfully juggle part time job holding and school work advocating a developmental approach to work. However, methodologically it may be likely that there is sample selection bias in this model and furthermore, no measure of previous educational attainment is available which could severely confound the results.

9.6.2 Labour market outcomes

The final empirical chapter of the dissertation began by introducing the reader to the institutional context of the economic activities of a cohort of Irish school leavers.

Explaining unemployment risks in the transition stage – plus ca change?

It would seem that higher educational qualifications and work experience acquired before leaving school account for substantial resources for avoiding unemployment, that is, school leavers who left school before completing the Junior Certificate and/or leaving school without any work experience are associated with a greater likelihood of experiencing unemployment. However, not all types of programmes that offer a school organised work experience contributed to a lower unemployment risk – compared to any other stage of education acquired, school leavers with an established Leaving Certificate or Leaving Certificate Vocational Programme were more likely to avoid unemployment altogether. It would seem that participation in Leaving Certificate Applied contributes to a lower risk of extensive unemployment, rather than avoiding unemployment. Interestingly, the returns on work experience

before leaving school are again similar for young people who have experience of both part time jobs and school organised work experiences and those only with part time job experience. That is, even when accounting for individual and school level characteristics in a multilevel framework, these young people are more likely to either avoid longer spells of unemployment rather than experience intensive unemployment. However, it is possible that selection bias is distorting the results. That is, it may be that there are unobserved characteristics that influence having both a part time job and a school organised work experience which also influence the risk of unemployment. When the transition from employment into unemployment was considered, the findings suggested that any experience of work before leaving school has a positive effect on avoiding the move from employment into unemployment. However, further analyses indicated that early work experiences could not reduce the likelihood of moving from employment into unemployment for non-college bound youth, particularly when a measure of local socio-economic disadvantage was taken into account.

Position at the time of the survey: economic status, work conditions and work contracts

With respect to the economic status of school leavers at the time of the survey, there were marked gender differences. Among all school leavers, the influence of having a work experience of any kind before leaving school had a greater influence on the destination of males rather than females, even when accounting for other factors. Males who had early work experience were less likely to be in training/apprenticeships than in employment, but they were also less likely to be unemployed. Upon closer investigation of different types of early work experiences, among senior cycle leavers, school leavers, particularly males, who had term time jobs in senior cycle were less likely to be in education than in employment.

There was some evidence to suggest that school leavers who combined their school organised work experience with part time job holding were more likely to have perceived their education/training as being more useful in developing work related competencies. Because no such effect was apparent for those with school organised work experiences only, it would seem that work related competencies are

perhaps gained through part time jobs rather than school organised work experiences, which has an important policy implication, and would give weight to arguments advocating accrediting part time jobs rather than school organised work experience.

In terms of conditions of employment and job search strategies, there was some evidence to suggest that early work experiences had little effect on how school leavers conduct their job search. While the situation regarding conditions of employment has not been discussed in depth here, there was some evidence to suggest that school leavers who had any work experience before leaving school were less likely to be employed in temporary contracts rather than permanent contracts, the latter being a more favourable employment situation or a 'foot up the ladder'. However, when the typology of early work experiences was considered in this analysis, no distinction could be made.

Developmental explanations of early work experience (both part time jobs and school organised work experiences) argue that early work experience provides a socialisation function whereby students develop a taste for work. Furthermore human capital theory places emphasis on the benefits of work experience for the creation of labour market skills and provides employers with information on abilities and performance in the context of working life. Indeed much of the empirical research on the relationship between part time job holding and labour market outcomes report favourable outcomes from having experience of work before leaving school. The analyses conducted in this dissertation suggest that work experience is particularly important for the employment chances of males than females. However, it is difficult to arrive at clear causal processes and theoretical statements without further research dealing with possible selection bias in the models.

9.8 Policy Implications

This study has focused on the relationship between early work experiences undertaken before leaving school and the education and labour market outcomes of school leavers. This dissertation comes at a particularly interesting period of proposed educational reform at upper senior cycle in Ireland. A new model of

educational provision at upper senior cycle has been presented. There are currently four options on the table;

1. No changes to the current structure
2. Merge the established Leaving Certificate and the LCVP but keep LCA as it is
3. A three year senior cycle for all which would combine the best features of Transition Year, Leaving Certificate, and LCVP and retain LCA as it is
4. A unified senior cycle programme – which would abandon the ring fenced nature of LCA

This study has a number of implications, particularly in relation to curriculum differentiation and linkages between schools and employers.

In relation to curriculum differentiation, the challenge in policy terms is to find a way of providing education for those most at risk in the education system without marginalising certain groups towards certain pathways. Based on the findings presented in this dissertation, the challenge is to raise the profile of the Leaving Certificate Applied programme so that employers will place more value on it. A particularly interesting finding of this study is that the work experience element of Leaving Certificate Applied seems to have a positive effect on retention at second level, which represents a considerable positive effect of the current curriculum on offer. While participation in the Leaving Certificate Applied and LCA school organised work experience seems to be a particularly strong force in retaining young people at school, the market value of this programme seems to be lacking as these school leavers seem to occupy more marginalised locations in the labour force. However, better data is needed to fully understand the consequences of curriculum differentiation at senior cycle. Improvements could be made to the data, particularly in relation to the measurement of educational attainment, as well the measurement of future educational and occupational aspirations.

Secondly, in terms of linkages between schools and employers, this study has showed that considerable links currently exist between schools and employers. The

challenge here in policy terms is to find a way to channel the positive effects of part time job holding, such as positive outcomes in terms of developing work competencies, into school organised work experiences.

Thirdly, it has been difficult to arrive at precise conclusions regarding the effect of early work experiences on education and labour market outcomes because of a lack of key individual level measures in the data. In a context of evidence based policy making, it is imperative to include measures of prior ability in surveys which are designed to consider the outcomes of participation in second level education. Since the writing of this dissertation, I have met with staff from the Department of Education and Science and the Economic and Social Research Institute (ESRI) and outlined the difficulties in evaluating the outcomes of young peoples' educational trajectories without such measures. As a result, the State Examinations Commission (SEC) now provide the ESRI with data on previous educational attainment for the School Leaver Survey.

Finally, this dissertation makes it clear that the sampling of the data is an important consideration at the data analysis stage. Therefore, when analysing School Leaver Survey data multilevel models should be used.

9.9 Directions for Future Research

In terms of directions for future research, upon completion of this dissertation I can now suggest a number of areas for future research.

1. Before any decisions are made regarding changes to the senior cycle curriculum it would be helpful to know more about the longer term trajectories of young people who have participated in vocational type courses as part of senior cycle in the past. This can easily be achieved using the School Leavers Surveys to consider the determinants and outcomes of school leavers who participated in different forms of vocational education that has been provided at second level which pre-dates the Leaving Certificate Applied and Leaving Certificate Vocational Programmes.

2. More research attention should be placed on the young peoples ability to learn in a work setting and linkages between schools and employers. The fact that a growing proportion of students are in paid jobs during school and second level education represents an opportunity to use work as a deliberate learning experience and thereby help students develop their capacity for learning in work settings. I propose that the aims of this dissertation be extended to a qualitative study.

3. Further research is needed to disentangle the effects of early work experiences and curriculum differentiation. This is a key area for my postdoctoral studies. More precise conclusions could be arrived at if selection models were estimated for each of the analyses presented in this dissertation. Furthermore, different procedures for adjusting for selection bias should be used, including a structural equation model.

Appendices

Table A1: Demographic and Educational Context of Upper Secondary Education

Percentage of the population in education, ratio of upper secondary graduates to total population at typical age of graduation and percentage of the population that has attained at least upper secondary education, by age

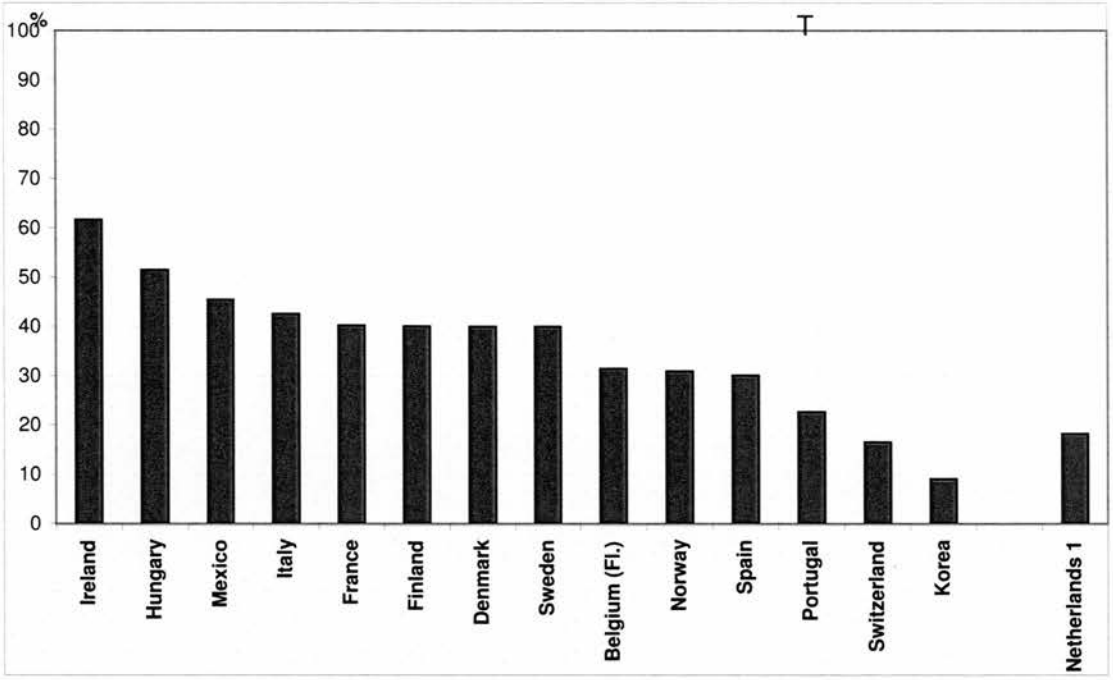
Country	Ending age of compulsory education (2000)	15-19 year old population at school as a percentage of the population of 15-19 year olds (2000)	Age range at which over 90% of the population are enrolled (2000)	Percentage of the population that has attained at least upper secondary education by age group (2001)					Ratio of upper secondary graduates to total population at typical age of graduation (2000) (multiplied by 100)	
				25-64	25-34	35-44	45-54	55-64	General Programmes	Pre-vocational/ vocational programmes
Belgium	18	90.5	3 – 17	59	75	63	51	38	36	54
Denmark	16	80.4	4 – 16	80	86	80	80	72	52	54
Finland	16	84.8	7 – 17	74	87	84	70	51	53	72
France	16	86.4	3 – 17	64	78	67	58	46	31	67
Hungary	16	81.1	5 – 16	70	81	79	72	44	26	70
Ireland	15	79.8	5 – 16	58	73	62	48	35	59	20
Italy	14	65.5	3 – 14	43	57	49	39	22	29	64
Korea	14	78.6	6 – 17	68	95	77	49	30	60	37
Mexico	15	41.0	6 – 12	22	25	25	17	11	28	4
Netherlands	18	86.6	4 – 17	65	74	69	60	51	37	57
Norway	16	85.5	6 – 17	85	93	90	82	70	64	52
Portugal	14	80.3	6 – 15	20	32	20	14	9	m	m
Spain	16	79.5	4 – 16	40	57	45	29	17	46	22
Sweden	16	86.4	6 – 18	81	91	86	78	65	42	32
Switzerland	15	83.5	6 – 16	87	92	90	85	81	m	m
Country Mean	**16**	**79.3**		**61**	**73**	**66**	**56**	**43**	**43**	**46**

Source: Completing the Foundation of Lifelong Learning – An OECD Survey of Upper Secondary Schools, OECD 2004

Table A2: Upper secondary providers by combination of programmes by types provided (2001) Percentage of upper secondary students enrolled in schools offering various programme combinations

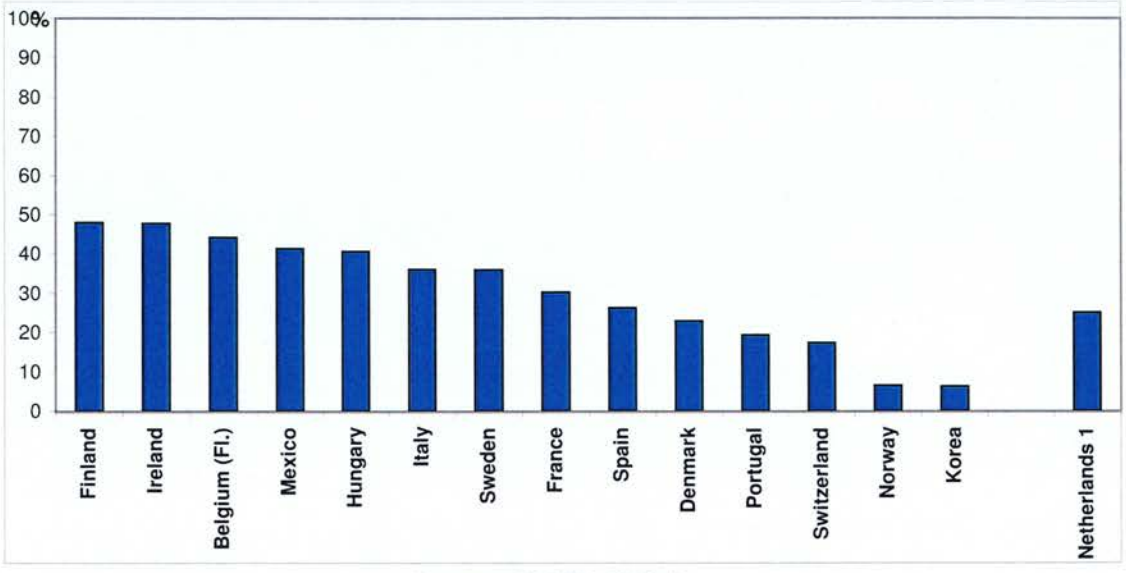
	Percentage of upper secondary students who attend schools offering one upper secondary programme	Percentage of upper secondary students who attend schools offering more than one upper secondary programme	General Providers Offerings	
			Only academic programmes (1)	Both academic and vocational programmes (2)
Belgium	33	67	30	A
(Fl)	31	69	43	A
Denmark	95	5	51	A
Finland	12	88	53	A
France	43	57	27	N
Hungary	4	96	3	21
Ireland	m	m	m	m
Italy	100	n	66	a
Korea	95	5	85	a
Mexico	25	75	12	a
Norway	19	81	5	73
Portugal	50	50	45	a
Spain	21	79	5	a
Sweden	23	77	20	10
Country Mean	42	58	34	26

Figure A1: The school invited employers/practitioners to talk to students



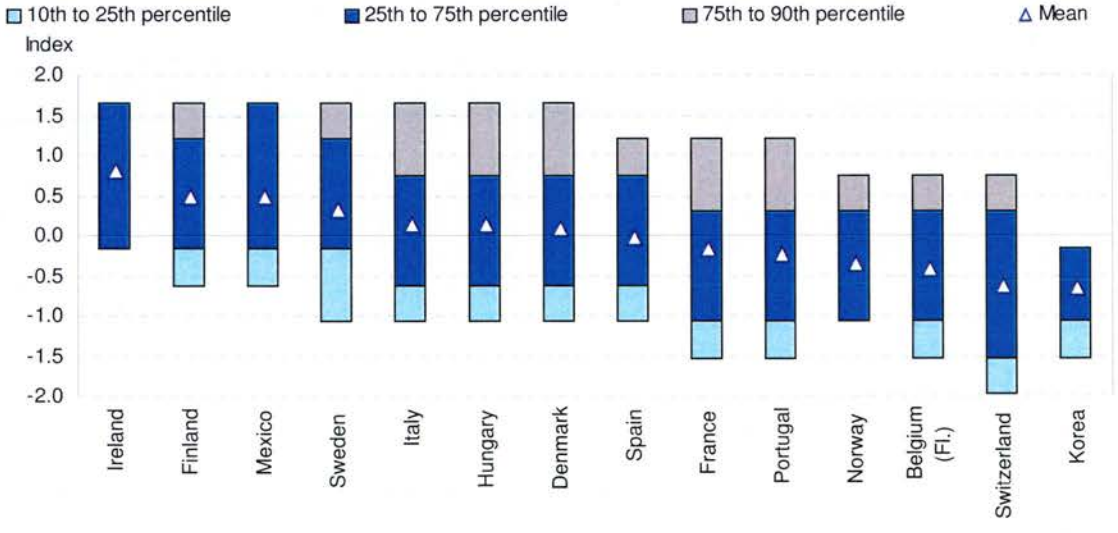
Source: OECD 2004

Figure A2: The school organises visits to employment organisations and/or counselling services



Source: OECD (2004)

Figure A3: Index of career guidance involving external contacts



Source: OECD (2004)

Table A3: List programmes provided at upper second level

Country	ISCED Level	Destination	Orientation	Age Range	Work Experience
Belgium					
ASO (general upper secondary education)	3	Higher Education, all types	General		
BSO (vocational upper secondary education)	3	Prepare for Labour Market	Vocational		
KSO (artistic upper secondary education)	3				
TSO (technical upper secondary education)	3	Higher Education, all types	Vocational		
Denmark					
Alment gymnasium	3	Higher Education, all types	General		
HF	3	Higher Education, all types	General		
HHX	3	Higher Education, all types	General		
HTX	3	Higher Education, all types	General		
EUD mercantile	3	Prep for labour market/educ	Vocational		
EUD Teknisk	3	Prep for labour market/educ	Vocational		
SOSU	3	Prep for labour market/educ	Vocational		
Landbrugs, gartner, og skovbrugsuddannelser	3	Prep for labour market/educ	Vocational		
Finland					
Lukio	3	Higher Education, all types	General		
Ammatillinen Koulu	3	Higher Education, all types	Vocational		
France					
Second cycle general du second degree	3	Higher Education, all types	General		
Second cycle technologique du second degree	3	Higher Education, all types	General		
Second cycle professionnel du second degree niveau CAP, BEP (Sous statut scoaire)	3	Prep for labour market/educ	Vocational		
Second cycle professionnel du second degree niveau CAP, BEP (apprenticeship)	3	Prep for labour market/educ	Vocational		
Second cycle professionnel du second degree niveau bac (sous statut scolaire)	3	Specific higher education	Vocational		
Second cycle professionnel du seconde degree niveau bac (en apprentissage)	3	Specific higher education	Vocational		

Country	ISCED Level	Destination	Orientation	Age Range	Work Experience
Hungary					
Gimnazium (secondary grammar school)	3	Higher Education, all types	General		
Szakkozepiskola (secondary voc. school)	3	Higher Education, all types	Pre-Vocational		
Szakiskola 9-10	3	Prep for labour market/educ	General		
Szakiskola szakkepzo evefolyamai 11-12	3	Prep for labour market/educ	Vocational		
Ireland					
Leaving Certificate Programme	3	Higher Education, all types	General		
Leaving Certificate Vocational Programme	3	Higher Education, all types	Pre-Vocational		
Transition Year Programme	3	Prep for labour market/educ	General		
Leaving Certificate Applied	3	Prep for labour market/educ	Pre-Vocational		
Italy					
Liceo clasico, scientifico, linguistico	3	Higher Education, all types	General		
Istituto magistrale, professionale e d'arte (4th 5th year), Istituto technico-professionale quinquennale, Corsi sperimentali tecnico-professionali quinquennali	3	Higher Education, all types	General		
Liceo artistico	3	Higher Education, all types	General		
Istituto professionale e d'arte (I, II, III anno)	3	Prep for labour market/educ	Vocational		Two further years of sandwich study inc work placements
Korea					
General high school	3	Higher Education, all types	General		
Vocational high school (including comprehensive high school)	3	Prep for labour market/educ	Vocational		
Mexico					
(Matricula en) bachillerato general	3	Higher Education, all types	General		
(Matricula en) bachillerato tecnologico	3	Higher Education, all types	General		
(Matricula en) professional medio	3	Prep for labour market/educ	Vocational		

Country	ISCED Level	Destination	Orientation	Age Range	Work Experience
Netherlands[1]					
VBO – pre-vocational secondary education					
HAVO-bovenbouw	3	Specific higher education	General		
VWO – bovenbouw	3	Higher Education, all types	General		
Beroepsopleidende (BOL) kwalificatieniveau 3/4	3	Labour market/educ/seduc	Vocational		
Beroepsopleidende (BOL) leerweg (BBL) kwalificatieniveau 3/4	3	Labour market/educ/seduc	Vocational		
Norway					
Allmennfaglige studiertniger	3	Higher Education, all types	General		
Yrkesfaglige studieretinger	3	Higher Education, all types	Vocational		
Pabygging for generell studiekompetanse	3	Prep for labour market/educ	Vocational		
Pabygging for yrkesutdanning	3	Prep for labour market/educ	Vocational		
Teknisk fagskole	3	Prep for labour market/educ	Vocational		
Portugal					
Ensino Secundario – Cursos Gerais	3	Higher Education, all types	General		
Ensino Secundario – Cursos Tecnologicos	3	Specific higher education	General		
Cursis das Escolas Profissionais	3	Prep for labour market/educ	Vocational		
Cursos de Aprendizagem de Nivel III	3	Prep for labour market/educ	Vocational		
Spain					
Bachillerato	3	Higher Education, all types	General		
Ciclos Formativos de Formacion Profesional de Grado Medio	3	Prep for labour market/educ	Vocational		
Sweden					
Gymnasieprogram utan yrkesamnen	3	Higher Education, all types	General		
Gymnasieprogram med yrkesamnen	3	Higher Education, all types	Vocational		

[1] Vocational programmes (BOL, BBL)

Country	ISCED Level	Destination	Orientation	Age range	Work Experience
Switzerland					
Sek. II: Gymnasiale Maturitat	3	A	General		
Sek. II: Berufsmaturitat	3	A	General		
Sek. II: Diplommittelschule (DMS) Technical high schools	3	B	General		
Sek. II: Lehrerseminar	3	A	General		
Sek. II: Berufsbildung (mindestens 3 Jahre)	3	B	Vocational		
Sek. II: Diplommittelschule (2 Jahre)	3	C	General		
Sek. II: Berufsbildung (2 Jahre)	3	C	Vocational		
Sek. II: Anlehre	3	C	Vocational		
Australia					
College, senior secondary college (age 16-18)			General/Technical		Workplace learning programmes in year 10, 11 and 12 – recognised as part of course
Secondary college, High School (12-18)			General/Technical		
TAFE (technical and further education) 16+			Technical		
Canada					
Senior high school			General/Technical		
England					
Secondary school			General		
Sixth form college			General		
Further education institutions			General/technical/vocational		

Country	ISCED Level	Destination	Orientation	Age range	Work Experience
Germany					
Gymnasiale Oberstufe			General		
Berufliche Gymnasien/Fachgymnasien			Vocational		
Berufsfachschule			Vocational		
Berufsfachschule (plus work placed training)			Vocational		
Fachoberschule			Vocational		
Dual system training and education			Vocational		
Berufsoberschule			Vocational		
United states					Co-operative education place students in real jobs with employers as one component of their formal course of studies. The work is often jointly supervised by the employer and a teacher and is paid. In both Canada and the US, up to ten per cent of those in the last two years of high school are involved in co-op, and a common attendance pattern involves the student spending half a day in each setting (OECD 2000).

Country	ISCED Level	Destination	Orientation	Age Range	Work Experience
Japan					The Japanese system is closely linked with the labour market via a school placement system that efficiently supplies companies with hardworking employees (Inui and Hosogane 1995).
Senior high schools					
New, all through secondary school					
Comprehensive senior high schools					
Colleges of technology					
Special training colleges					
Other schools					
New Zealand					
Secondary schools					
United States					
High schools (grades 10-12)					Career academies have employer partnerships to provide internships with other experiences outside the classroom, related to the academy theme.
Magnet schools					
Vocational/technical high schools					
Scotland				16-18	All 16 year olds opportunity for 2 weeks work experience as general pre-vocational training.
S5 Higher Examinations					
S6 Advanced Higher					
GSVQ					
Scottish Group Awards					

Table A4: Aspects of institutional contexts in which early work experiences take place

Country	Le Metais(2002)	Vocational Specificity Secondary Education (%)	National Standardisation of Education	Stratification of Secondary Education	Rates of PTJ Holding	Political Economy	ILM/OLM
Austria (AT)		76	1	?	1.3	Coordinated market economy	OLM
Belgium		59			0.8	Coordinated market economy	ILM
Germany	Segregated system	80 (2)	1	2	2.0	Coordinated market economy	OLM
Denmark		56			41.6	Coordinated market economy	OLM
Spain	Integrated system	41			2.2	Mediterranean	Southern Europe
Finland		54			10.3	Coordinated market economy	
France	Segregated system	54 (1)	1	1	0.4	Mediterranean	ILM
Greece		21			0.7	Mediterranean	Southern Europe
Ireland	Integrated system	**0 (0)**	**1**	**0**		Liberal market economy	ILM
Italy	Segregated system	67 (1)	1	1	0.8	Mediterranean	Southern Europe
Turkey						Mediterranean	
Luxembourg		54					
Netherlands	Segregated system	70 (2)	1	2		Coordinated market economy	OLM
Portugal		14				Mediterranean	Southern Europe
Sweden	Integrated system	76 (1)	1	0	14.5	Coordinated market economy	
United Kingdom	Integrated system	58 (1)	0	0	36.2	Liberal market economy	ILM
USA	Integrated system	(1)	0	0	31.7	Liberal market economy	
Australia	Segregated system	(1)	0	0	39.7	Liberal market economy	
Canada	Integrated system					Liberal market economy	
New Zealand	Integrated system					Liberal market economy	
Japan	Segregated system	(0)	1	0		Coordinated market economy	
Switzerland	Segregated system	(2)	1	2	13.4	Coordinated market economy	
Norway						Coordinated market economy	
Hungary	Segregated system						
Korea	Segregated system						
Singapore	Segregated system						

Table A5: Explanation of Variables used in the Analyses

	Variable Name	Description
	Gender	1=male, 0=female unless otherwise stated
	Parental social class (dominance)	Series of dummy variables of categories: Higher professional, lower professional, non manual, skilled manual, semi-skilled manual and unskilled manual
	Parental education (dominance)	Series of dummy variables Primary or less, Junior Certificate, Leaving Certificate, Diploma or Higher
	Parental employment	Parental employment situation. Dummy variable 1=full parental employment, 0=at least one parent not in employment
	Family structure	Number of parents present. Dummy variable 1=single parent family, 0=both parents present
	Local area deprivation	Measure of local area socio-economic deprivation. Series of dummy variables. Categories are High deprivation, moderate deprivation, low deprivation
	Transition Year	Dummy variable coded 1 if the senior cycle leaver had participated and completed Transition Year
	Years of schooling	Dummy variable coded 1 if the senior cycle completor had participated in and completed Transition Year
	School Type attended	Series of dummy variables representing the type of school the student had attended. Secondary, Vocational or Community/Comprehensive.
	Gender mix of school	Dummy variable representing 1 if the school had a mixed student intake and 0 if it was a single sex school
	Mean Socio-mix	Average student intake in school according to socio-economic status.
	Curricular pursued	Series of dummy variables indicating if the school leaver was pursuing the established Leaving Certificate, The LCVP or the LCA
	Junior Cycle Leaver	those who leave school before or having completing the junior certificate
	Senior Cycle Leaver	those who left school having completed the junior certificate and entered or completed senior cycle

Table A6: Transitional Probabilities of Part time job holding among junior cycle leavers

	1st year	2nd year	3rd year
Percent had a PTJ (all junior cycle leavers)	10.7	16.7	22.6
Percent had a PTJ (those who completed junior cycle)	9.4	18.8	33.2
N	(35)	(70)	(124)
Conditional Probabilities			
Those who completed Junior Cycle			
Percentage that had term time job in 1st year		88.6	85.7
Percentage that did not have a term time job in 1st year		11.5	27.8
Percentage that had term time job in 2nd year	44.3		85.6
Percentage that did not have a term time job in 2nd year	1.3		21.1
Percentage that had term time job in 3rd year	24.2	48.4	
Percentage that did not have a term time job in 3rd year	2.0	4.0	

Table A7: Distribution of term time job holding among junior cycle leavers

	Junior Cycle Leavers
Gender	
Male	35.8
Female	20.8
Parental Social Class	
Higher & Lower Professional	33.0
Non Manual	36.5
Skilled Manual	34.9
Semi-Unskilled Manual	30.1
Unclassified	12.9
Parental Education	
Primary or Less	26.7
Junior Certificate	35.4
Leaving Certificate	36.7
Diploma or Higher	33.3
Unknown	25.4
Household Employment	
Full Household Employment	43.2
Exposed to Unemployment	24.4
Family Structure	
Two parents present	31.3
Single parent family	29.9
School Type Attended	
Secondary	25.5
Comm/Comp	30.1
Vocational	33.9
Local Authority Area Depriv	
High	27.3
Medium	31.7
Low	32.8
Stage Left School	
Completed JC	37.8
Left before completion	21.3

Table A8: Part time job holding rates of those who completed a 5 year cycle, by selected student characteristics, males and females separately

	1st Year		2nd Year		3rd Year		5th Year		6th Year	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	5.4	4.1	12.0	10.7	25.9	20.7	50.6	53.6	40.8	44.6
Parental Social Class										
Higher/Lower Prof/Non Manual	6.3	2.9	13.8	10.3	27.2	17.4	51.1	47.9	40.7	39.9
Ref: All other social groups	4.0	5.9	9.2	11.4	23.7	25.7	49.7	62.4	41.0	52.0
Parental Education										
Primary or Less	8.8	7.0	17.6	14.0	36.8	32.0	55.9	66.0	47.1	57.0
Second level or higher	4.8	3.4	11.0	9.9	23.9	17.9	49.6	50.6	39.7	41.6
Household Employment										
Full household employment	7.1	4.7	13.7	11.3	28.0	23.4	54.5	55.9	45.0	46.5
Exposed to unemployment	3.9	3.5	10.4	10.1	23.9	17.9	47.0	51.4	37.0	42.8
Family Structure										
Single parent household	5.9	2.6	17.6	7.9	26.5	18.4	38.2	42.1	35.3	34.2
Two parents present	5.4	4.2	11.5	10.9	25.8	20.8	51.6	54.5	41.3	45.5
School Type Attended										
Secondary	4.8	5.7	8.9	12.3	21.4	18.0	41.7	58.8	32.1	52.1
Community/Comprehensive	8.6	4.0	18.5	6.7	30.9	18.7	58.0	42.7	37.0	33.3
Vocational	4.7	2.6	12.0	10.6	27.6	23.8	55.2	52.4	50.0	41.4
Measure of socio-economic disadvantage										
High	9.6	9.2	16.3	16.9	30.8	24.6	56.7	57.0	41.3	43.7
Moderate	5.4	2.9	16.3	7.1	28.6	20.6	54.4	54.1	46.9	48.2
Low	3.4	1.6	6.7	9.4	21.9	17.8	46.6	51.3	37.1	42.4
N	441	513	441	513	441	513	441	513	441	513

Table A9: Part time job holding rates of those who completed a 6 year cycle, by selected student characteristics

	1st Year		2nd Year		3rd Year		Transition Year		5th Year		6th Year	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
	3.3	*1.7*	*6.0*	*4.2*	*14.4*	*10.9*	*47.0*	*49.4*	*51.2*	*54.4*	*31.6*	*37.7*
Parental Social Class												
Higher/Lower Prof/Non Manual	3.0	1.8	6.0	4.3	15.5	11.6	47.6	51.2	53.0	53.7	32.7	38.4
Ref: All other social groups	4.3	1.3	6.4	4.0	10.6	9.3	44.7	45.3	44.7	56.0	27.7	36.0
Parental Education												
Primary or Less	10.0	2.8	15.0	5.6	25.0	5.6	50.0	52.8	60.0	55.6	35.0	36.1
Second level or higher	2.6	1.5	5.1	3.9	13.3	11.8	46.7	48.8	50.3	54.2	31.3	37.9
Household Employment												
Full household employment	3.3	2.4	5.7	5.6	12.2	11.9	43.1	48.8	46.3	53.2	30.1	34.9
Exposed to unemployment	3.3	0.9	6.5	2.7	17.4	9.7	52.2	50.4	57.6	55.9	33.7	40.7
Family Structure												
Single parent household	0.0	0.0	0.0	0.0	6.3	11.1	31.3	44.4	37.5	55.6	37.5	38.9
Two parents present	3.5	1.8	6.5	4.5	15.1	10.9	48.2	49.8	52.3	54.3	31.2	37.6
School Type Attended												
Secondary	0.7	2.0	3.6	4.7	10.1	10.7	40.6	51.0	44.9	53.7	21.7	32.9
Community/Comprehensive	8.3	0.0	12.5	0.0	29.2	10.5	75.0	47.4	70.8	57.9	50.0	47.4
Vocational	7.5	1.4	6.0	4.2	18.9	11.3	50.9	46.5	58.5	54.9	49.1	45.1
Measure of socio-economic disadvantage												
High	5.0	3.8	5.0	5.8	20.0	9.6	45.0	42.3	65.0	51.9	30.0	34.6
Moderate	3.6	0.0	4.8	3.8	10.7	12.5	47.6	61.3	56.0	67.5	38.1	46.3
Low	2.8	1.9	7.3	3.8	16.5	10.6	47.7	44.2	45.9	46.2	27.5	33.7
	215	239	215	239	215	239	215	239	215	239	215	239

Table A10: Multilevel binary regression of factors associated with dropping out during junior cycle versus all other stages of second level education

	Model 1 Unconditional	Model 2 Individual level	Model 3 School level	Model 4 Part time job 1st yr
Constant	*-1.260 (.055)*	-1.965 (.333)	*-1.444 (.538)*	*-1.467 (.541)*
Gender				
Male		.165 (.093)	.132 (.094)	.089 (.095)
Ref: Female				
Parental Social Class				
Lower Professional		.526 (.330)	.499 (.334)	.482 (.334)
Non Manual		.682 (.317)*	.623 (.321)	.626 (.332)
Skilled Manual		.846 (.319)*	.781 (.323)*	.762 (.324)*
Semi skilled Manual		1.140 (.324)*	1.068 (.329)*	1.061 (.330)*
Unclassified		1.120 (.327)*	1.107 (.331)*	1.129 (.332)*
Ref: Higher Professional				
Parental Highest Education				
Junior Certificate		-.465 (.108)*	-.464 (.109)*	-.440 (.110)*
Leaving Certificate		-.731 (.132)*	-.679 (.134)*	-.675 (.136)*
Diploma or Higher		-.942 (.222)*	-.888 (.224)*	-.841 (.224)*
Unclassified		-.142 (.150)	-.161 (.151)	-.152 (.152)
Ref: Primary or Less				
Parental Employment Situation				
Full household employment		-.350 (.104)*	-.358 (.106)*	-.391 (.107)*
Ref: Exposed to hh unemployment				
Family Structure				
Single parent household		.281 (.135)*	.281 (.136)*	.304 (.137)*
Ref: Two parent household				
Local Area Socio-Deprivation				
High		.190 (.140)	.253 (.146)	.258 (.148)
Medium		.084 (.137)	.134 (.141)	.133 (.142)
Ref: Low				
School Type Attended				
Community/Comprehensive			.681 (.227)*	.670 (.229)*
Vocational			.679 (.191)*	.685 (.193)*
Ref: Secondary				
Gender-mix of school				
Mixed			-.487 (.193)*	-.505 (.195)*
Ref: Single-sex				
Socio-mix of school			-.168 (.117)	-.167 (.118)
Curricular at senior cycle				
Differentiated			-.071 (.156)	-.070 (.158)
Not differentiated				
Part time job 1st year				
Yes				.572 (.147)*
Ref: No				
Random Effects	.322 (.061)	.310 (.074)	.306 (.074)	.313 (.076)

Table A11: Multilevel binary regression of factors that influence dropping out of school in junior cycle versus all other stages

	Model 1 Unconditional	Model 2 Individual level	Model 3 School level	Model 4 Part time job 1st yr
Constant	*-.836 (.060)*	-1.138 (.179)	*-.752 (.391)*	*-.777 (.392)*
Gender				
Male		.587 (.073)*	.557 (.073)*	.534 (.074)*
Ref: Female				
Parental Social Class				
Lower Professional		.365 (.159)*	.327 (.161)*	.310 (.161)
Non Manual		.490 (.153)*	.420 (.156)*	.426 (.156)*
Skilled Manual		.568 (.158)*	.499 (.160)*	.489 (.160)*
Semi skilled Manual		.561 (.169)*	.497 (.173)*	.497 (.173)*
Unclassified		.724 (.175)*	.694 (.176)*	.714 (.177)*
Ref: Higher Professional				
Parental Highest Education				
Junior Certificate		-.293 (.087)*	-.285 (.087)*	-.269 (.088)*
Leaving Certificate		-.731 (.098)*	-.686 (.099)*	-.675 (.099)*
Diploma or Higher		-1.086 (.138)*	-1.027 (.139)*	-.999 (.140)*
Unclassified		-.049 (.126)	-.057 (.127)	-.056 (.127)
Ref: Primary or Less				
Parental Employment Situation				
Full household employment		-.136 (.073)*	-.139 (.073)*	-.155 (.074)*
Ref: Exposed to hh unemployment				
Family Structure				
Single parent household		.130 (.114)	.122 (.114)	.126 (.115)
Ref: Two parent household				
Local Area Socio-Deprivation				
High		.034 (.114)	.081 (.117)	.075 (.117)
Medium		-.057 (.109)	.002 (.109)	-.002 (.110)
Ref: Low				
School Type Attended				
Community/Comprehensive			.672 (.184)*	.666 (.185)*
Vocational			.644 (.152)*	.643 (.153)*
Ref: Secondary				
Gender-mix of school				
Mixed			-.274 (.153)*	-.258 (.153)
Ref: Single-sex				
Socio-mix of school			-.152 (.093)	-.148 (.093)*
Curricular at senior cycle				
Differentiated			-.080 (.127)	-.078 (.128)
Not differentiated				
Part time job 1st year				
Yes				
Ref: No				.417 (.122)*
Random Effects	.469 (.072)	.325 (.058)	.306 (.057)	.309 (.057)

Table A12: Binary logistic regression model of factors influence dropping out of school versus completing second level education

	Model 1 Unconditional	Model 2 Individual level	Model 3 School level	Model 4 Part time job 1st yr
Constant	*-.474 (.059)*	-.710 (.158)	*-.122 (.365)*	*.562 (.069)*
Gender				
Male		.621 (.068)*	.589 (.068)*	.562 (.069)*
Ref: Female				
Parental Social Class				
Lower Professional		.374 (.134)*	.333 (.136)*	.311 (.136)*
Non Manual		.452 (.130)*	.377 (.132)*	.387 (.132)*
Skilled Manual		.508 (.136)*	.436 (.138)*	.426 (.138)*
Semi skilled Manual		.557 (.148)*	.485 (.151)*	.493 (.151)*
Unclassified		.455 (.155)*	.422 (.157)*	.448 (.157)*
Ref: Higher Professional				
Parental Highest Education				
Junior Certificate		-.260 (.086)*	-.249 (.086)*	-.228 (.086)*
Leaving Certificate		-.671 (.092)*	-.618 (.092)*	-.603 (.093)*
Diploma or Higher		-1.065 (.121)*	-1.002 (.121)*	-.972 (.122)*
Unclassified		-.145 (.126)	-.143 (.127)	-.137 (.127)
Ref: Primary or Less				
Parental Employment Situation				
Full household employment		-.181 (.067)*	-.187 (.068)*	-.207 (.068)*
Ref: Exposed to hh unemployment				
Family Structure				
Single parent household		.173 (.109)	.169 (.110)	.176 (.110)
Ref: Two parent household				
Local Area Socio-Deprivation				
High		.093 (.109)	.134 (.110)	.122 (.110)
Medium		-.087 (.103)	-.038 (.103)	-.048 (.103)
Ref: Low				
School Type Attended				
Community/Comprehensive			.750 (.173)*	.743 (.174)
Vocational			.683 (.143)*	.685 (.143)*
Ref: Secondary				
Gender-mix of school				
Mixed			-.358 (.142)*	-.374 (.142)*
Ref: Single-sex				
Socio-mix of school			-.198 (.086)*	-.190 (.086)*
Curricular at senior cycle				
Differentiated			-.077 (.119)	-.075 (.120)
Not differentiated				
Part time job 1st year				
Yes				
Ref: No				.576 (.124)*
Random Effects	.507 (.072)	.338 (.056)	.295 (.052)	.297 (.052)

School Pupil

I.D. No. ☐☐☐☐ / ☐☐☐☐☐

DEPARTMENT OF EDUCATION & SCIENCE SURVEY OF SCHOOL LEAVERS, Spring 2003

LEAVERS OF SCHOOL YEAR, 2000/2001

Interviewer's Name:_____ Interviewer's No: _____

1. **Respondent's (i.e. School Leaver's) Sex:** Male 1 Female 2

A. Did you contact the respondent or someone who could complete the questionnaire on his/her behalf?

Yes .....1 No.....2

Why not?

Respondent deceased 2
Household moved/gone away permanently 3
Household temporarily absent (holidays etc.) 4
House demolished/vacant/could not locate.....5
Refusal/nobody in household could give information 6
Non-contact (no answer, despite repeated calls).....7
Other (Specify) 8

TERMINATE INTERVIEW

B. Has the respondent left the school specified on the Quota Sheet?

Yes.....1 No ..... 2 → **TERMINATE INTERVIEW**

C When did he/she leave the school on the quota sheet? _____ month _____ year.

D Did the respondent attend another mainstream second level school after leaving the school named on the quota sheet i.e. after the date at C above? This includes attendance at Post-Leaving Cert or VPT courses in a Secondary, Vocational, Community or Comprehensive school.

Yes.....1 No ..... 2 → **GO TO CHECK BOX BELOW**

E What was/is the respondent doing at this other school?

Repeating Leaving Cert	Yes ... 1	No ... 2
Doing a Post Leaving Cert Course (PLC)	Yes ... 1	No ... 2
Other	Yes ... 1	No ... 2

F What type of school was this?

Secondary..... 1
Vocational 2
Community/Comprehensive..... 3

G Name of new school_____

H Has the respondent completed this course or left this other school?

Yes.....1 No ..... 2 → **TERMINATE INTERVIEW**

I Date of leaving course or school _____ (mth) _____ (yr)

→ **GO TO CHECK BOX BELOW**

INTERVIEWER CHECK BOX – ***check date when respondent finally left school (date at either C or H above)***
If date is between 1st September 2000 and 31st August 2001 CONDUCT INTERVIEW
If date s before 1st September 2000 or after 31st August 2001 TERMINATE INTERVIEW

DEPARTMENT OF EDUCATION AND SCIENCE SURVEY OF LEAVERS IN SCHOOL YEAR '00/'01

1a **Information from?** **School Leaver him(her) self .....1** **Parent ..... 2** **Other (specify)_____ 3**

1b **Date of interview: Day_____** **Month_____**

2. (a) **Date of birth:** Month_____ Year_____

(b) **Place of birth** (write in) _____ Area Code_____
(i.e. usual residence of mother at time of birth, not the address of the hospital where born)

(c) **Marital status:** Single ..... 1 Married ..... 2 Living with Partner .....3 Other 4

(d) **Which of the following best describes the household in which the respondent lives at the moment?** (For students, describe their term-time household)
With Parents 1
With Parents-in-law 2
In own household (possibly with spouse/partner + Children) 3
Sharing house or flat with persons other than spouse/partner 4
Hall of residence or other institution 5

3. (a) **Address supplied by school** (Confirm) _____

_____ Area Code _____

(b) **Is this still your address?** ..... Yes ..... 1 No 2

(c) **If No, what is your present address** _____

_____ Area Code _____

Int: If person is now resident outside the Republic of Ireland, ask Q. 4(a) and (b) below. If person is still resident in Ireland, go to Question 5.

4. (a) **Why did school-leaver leave the country?** (Specify one reason only)
Because family was emigrating 1
To continue further education 2
To take up employment/training which
was arranged before leaving country 3
To look for work 4
Other reason 5

(b) **When did school-leaver leave country?** Month_____ Year _____

5. **When did you leave school?** Month_____ Year_____

6. **What was the last certificate examination you sat for before leaving school?**
Established Junior Certificate ..... 1→ Go to 6(b)
Junior Certificate School Programme ..... 2→ Go to 6(b)
Established Leaving Certificate ..... 3→ Go to 6(b)
Leaving Certificate Applied Programme ..... 4→ Go to 6(b)
Leaving Certificate Vocational Programme.. 5→ Go to 6(b)
Never sat for any official examination ..... 6→ Go to 6(c)
[Int: Does not include PLCs]

(b) **In what year did you sit for this exam?** _____→ Go to 7(a)

(c) (If resp never sat for any exam. – code 6 at (a)) **What year were you in when you left school?**

First year ..... 1→ Go to 7(b)
Second year ..... 2→ Go to 7(b)
Third year ..... 3→ Go to 7(b)
Other (specify) ..... 4→ Go to 7(b)

_____

7. (a) [Int: If respondent sat for an official examination i.e. codes 1-5 at Question 6(a)]. **At this examination, what subjects did you sit for, what level paper did you take and what grades did you get?**
[Int: Enter Subject, Level and Grade below. Note this does not include PLCs]

(b) [Int: If you never sat for an official examination i.e. code 6 at Question 6(a)] **What subjects did you take in your final year at school?** [Int: List Subjects below, leaving Level and Grade blank.]

Subject	Level	Grade	Leaving Certificate Applied Merit	Leaving Certificate Applied Distinction
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2
_____	_____	☐☐	☐1	☐2

(c) [Int: To be answered only if respondent cannot provide complete details on subject level and grade on last examination sat in Q.7(b) above.]
Perhaps you could tell me: (a) how many honours and pass subjects you sat for in your last examination; (b) of these, in how many did you achieve an A, B or C; a D; or an E, F or NG?

LEVEL	No. of Subjects	No. of A,B,C's	No. of D's	No. of E,F or NG's
Honours Subjects				
Pass Subjects				

8a. **Did you ever participate in the Transition year?** Yes .....1 No.....2

8b. **Did you complete it or leave before completion?** Completed Trans Year .....1 Left before comp.....2

8c. **Were you ever enrolled in the Leaving Certificate Applied (LCA) or Leaving Certificate Vocational (LCVP) programs.**

LCA .....1 LCVP.....2 Neither 3

8d. If resp DID LCA OR LCVP:
Why did you decide to enrol in this programme? (Please circle all that apply).

Everyone in the school was taking it (obligatory).....1
Most of my friends were taking it.....2
I was told by the school to take it.....3
I wanted to do more practical subjects 4
My teacher(s) advised me to take it.....5
I did not think I would do well on the Established (regular) Leaving Cert...6
Other (specify).....7

8e. If resp DID NOT take LCA OR LCVP:
Would you have liked to take part in one of these programmes?

Yes, LCA.....1 Yes, LVCP.....2 No 3

8f. ***Apart from the examination mentioned at Question 6, what previous examinations did you sit for?***
(Circle appropriate number(s)

Junior Certificate.....1
Established Leaving Certificate or equivalent 2
Leaving Certificate Applied Program.....3
Leaving Certificate Vocational Program.....4
No previous examination.....5

9. **At what stage of education did you leave** (Code the first of the following that applies and make sure it is consistent with Q.6 above.)

Having completed the Established Leaving examination 1
While studying for Established Leaving Certificate examination 2
Having completed the Leaving Certificate Vocational Program 3
While studying for the Leaving Certificate Vocational Program 4
Having completed the Leaving Certificate Applied Program 5
While studying for the Leaving Certificate Applied Program 6
Having completed the Transition Year 7
While doing the Transition Year 8
Having completed the Junior Certificate examination or equivalent 9
Without completing any official examination
(i.e. never sat for Junior, Intermediate, Group or Leaving Certificate) 10

10. **Thinking back to your last year of school, please say whether you agree or disagree with each of the following statements?** [Int: Show Card A]

	Agree		Disagree		Agree		Disagree
1 School work was worth doing	1		2	8 Teachers listened to my ideas and views	1		2
2 My teachers didn't care about me	1		2	9 Teachers often gave me homework	1		2
3 There were too many troublemakers in my classes	1		2	10 Teachers made sure I did homework they set	1		2
4 My teachers helped me to do my best	1		2	11 My school dealt well with bullying	1		2
5 My friends took school seriously	1		2	12 If I had a problem there was always a teacher I could talk to	1		2
6 Teachers could not keep order in class	1		2	13 My school had a wide range of after-school activities (such as sports, clubs)	1		2
7 Discipline was fair	1		2				

11. **In your last year at school, how often did you skip lessons (or 'mitch')?**

Never	A lesson here and there	A day here and there	Several days at a time	Weeks at a time
1	2	3	4	5

12. **In your last year at school, did you or your parents pay for private tuition ('grinds') for you in any subject?**

Yes ..... 1 No 2

13. **(a) Did you ever go on to do any form of full-time vocational preparation, secretarial or Post Leaving Cert. Course (PLC) in a second level school, even if only for a few days?**

Yes, did vocational course (VPT, PLC etc.) ... 1 No, no vocational course 2

(b) **What were the main subjects covered?** (Read out and circle all that apply)

Engineering	1	Computer Studies	11
Construction	2	Beauty Care/Hairdressing	12
Agriculture/Horticulture/Marine	3	Leisure/Recreation/Sports/Equestrian	13
Secretarial/Office Procedures	4	Catering	14
Secretarial/Bilingual/Legal	5	Travel/Tourism/Hotels (not Catering)	15
Business Studies/Administration	6	Art/Craft/Design/Fashion	16
Marketing/Sales/Advertising	7	Media/Journalism	17
Accounting	8	Film/Music/Theatre/Animation	18
Child Care/Pre-Nursing/Community Care	9	Teleservices	19
Electronics	10	Other (please specify)	20

(c) When did you begin this course _____ (month) _____ (year)

(d) And when did you end it _____ (month) _____ (year)

(e) Did you do the Vocational Course in
Same school as did your last exam (Junior/Leaving etc.) in 1
Different Secondary School 2
Different Vocational School 3
Different Community/Comprehensive School 4

(f) **Name of school**_____

(g) Did you complete the course? Yes ..... 1 No 2

(h) Did you receive a certificate or diploma on completion? Yes.. 1 No ...2

(i) What was the name/title of this cert/diploma?_____

(j) If received a cert/diploma, what was the source of this cert/diploma?

FETAC/NCVA ..... 1 Other (Specify) ..... 2 Don't Know..... 3

(k) Did you receive a grant while attending this course? Yes 1 ..... No 2

14a. Did you take part in any periods of work experience as part of your school courses? (Circle all that apply)

Yes, Transition Year.....1 → Go to Q14b
Yes, Leaving Cert Applied.....2 → Go to Q14b
Yes, Leaving Cert Vocational.....3 → Go to Q14b
Yes, PLC.....4 → Go to Q14b
Yes, other (specify).....5_____→Go to Q14b
No.....6 → Go to Q15a

(b) If YES, In relation to the last period of work experience, how many days in total did you spend on work experience?

_____ days

(c) In relation to the last period of work experience, what was the nature of the business carried out by the employer?

_____

_____

(d) How helpful did you find this work experience in deciding what to do after leaving school?
[Int Tick one box only]
Very helpful.....1
Helpful.....2
Not very helpful.....3
Not at all helpful.....4

15a. Thinking back to when you were in school could you tell me whether or not you held a part-time job or jobs during term-time while you were still at school?

Yes, held a part-time job.....1 No.....2 → Go to Q16

15b. In which years did you hold a part-time job or jobs? (Int: Circle all that apply)

6th yr .....6 5th yr .....5 Transition year ..... 4 3rd yr ..... 3 2nd yr.....2 1st yr..... 1

15c. Thinking about the most recent year in which you held this job/these job(s), did you usually work? [Int: Circle Yes/No in respect of each]

	Yes	No		Yes	No		Yes	No
Saturdays	1	2	Sundays	1	2	Weekdays.....	1	2

15d. In total, about how many hours per week did you work in this/these part-time job(s) in the most recent year in which you held the job?

_____ hours per week

15e How helpful did you find this/these part-time jobs in deciding what to do after leaving school?

Very helpful.....1
Helpful.....2
Not very helpful.....3
Not at all helpful.....4

15f Have you worked with the same employer(s) at any time since leaving school (excluding summer holidays)?

Yes ..... 1 No 2

16 I would like you to think back to your last year in school. When you were deciding what to do after you left school:

(a) did you get any advice from any of the following people? [Int. Circle all that apply in column (A)]
(b) of those who gave you advice who do you think was the most help to you in deciding what to do after you left school. [Int. Circle one only in column (B)]

	(A) Any Advice	*(B) Most Helpful*	
1. Career guidance counsellor in school	**1**	**1**	
2. Another teacher in school	**2**	**2**	
3. Parent(s)	**3**	**3**	
4. Other family member	**4**	**4**	→ **Which one?**_____
5. Friend(s)	**5**	**5**	
6. Someone else (specify)	**6**	**6**	→ **Which one?**_____

17. Are you at the moment participating in any state-sponsored programme for young people?

Yes ..... 1 | No ..... 2 Go to Question 18a

Which one? (Show Card B and code one of the following)

Note to Interviewer

Apprenticeship with FÁS 01
Community Employment (FÁS) 02
Enterprise Scheme/Jobstart (FÁS) 03

These courses classified as "working" (Code 1 at Q18a)

FÁS Skills Foundation Programme 04
FÁS Specific Skills Course (SST) 05
FÁS Community Youth Training Programme 06
FÁS Community Training Workshops 07
Other FÁS training(specify) _____ 08
CERT Unemployed Training Programme (Short Duration) 09
YOUTHREACH Programme 10

These courses classified as Public Sector training (code 4 at Q 18a)

CERT Craft/Management Courses (i.e. long duration) 11
Bord Iascaigh Mhara Training in Fishing Industry 12
TEAGASC Certificate in Farming 13

These courses classified as student (code 6) at Q18a

Other State-sponsored scheme (PLEASE SPECIFY) 14
_____

18a. This card [show Card C] contains a list of categories which could be used to describe your usual situation with regard to employment. I would like you to think back to June 2001 and tell me what your main situation was with regard to employment in each month from June 2001 to date (current month).

Categories to describe situation with regard to employment

Working for payment 1
Unemployed, having lost or given up previous job 2
Looking for first regular job since leaving school 3
On a FÁS/CERT training scheme (other than Community Employment(CE)) 4
On PRIVATE training (not FÁS/CERT) – eg private secretarial course etc. 5
Student 6
Engaged in home duties 7
Unable to work due to permanent disability or illness 8
Other 9

So, which of these categories best describes your usual situation with regard to employment in June 2001, July 2001 etc.

2001	Activity Code	2002	Activity Code	2002	Activity Code	2003	Activity Code
June		January**		July		January	
July		February		August		February	
August**		March		September		March	
September		April		October		April	
October**		May**		November		May	
November		June		December		June	
December							

18b Int: If the respondent is coded 1, 4, 5 or 6 (working, training or a student) in **August 2001** or **October 2001** or **January 2002 or May 2002** ask Question 18b. Otherwise go to Question 19.

Please describe fully the type of work or training you were doing or the main educational course you were following in respect of each date. (If farmer or relative assisting, state acreage. If relevant, record rank or grade e.g. Gardai, Army, Civil Service).

August 2001 _____

_____

October 2001 _____

_____

January 2002 _____

_____

May 2002 _____

_____

19 Are you currently unemployed i.e. actively looking for and immediately available for work?

Yes ..... 1 | No ..... 2 → Go to 20

(b) Since when have you been *continuously* unemployed? _____day _____ Mth _____YR

[Int. Make sure this is consistent with the table in Question 18a].

(c) Are you currently registered ("signing on") at an Employment Office or Exchange?

Yes ..... 1 | No .....2 → Go to 19(f)

(d) (Are you (code ONE only)

Receiving Unemployment Benefit (i.e. "claiming on stamps") ..... 1 → Go to 19(e)
Receiving Unemployment Assistance ..... 2 → Go to 19(e)
Receiving Other Social Welfare Payment ..... 3 → Go to 19(e)
Not entitled to benefits but signing on for credits ..... 4 → Go to 19(f)
Awaiting decision or adjudication on your entitlement ..... 5 → Go to 19(f)

(e) (If receiving social welfare, codes 1, 2 or 3) **How much do you receive each week?**

€_____

(f) **Are you registered with FÁS** Yes .... 1 No 2

20 (a) Did you hold a job last week, even for a short time? How would you describe the job?

Regular, full-time .....1 → Go to 20(c)
Regular, part-time.....2 → Go to 20(b)
Temporary, full-time.....3 → Go to 20(c)
Temporary, part-time.....4 → Go to 20(b)
No job held last week.....5 → Go to 32

If no job held last week i.e. Code 5 circled at Question 20(a) above, skip to Question 33.

(b) If respondent was working part-time last week (codes 2 or 4 above).
Why do (or did) you have a part-time job?

Respondent is in education/training 1
Own illness or disability.....2
Did not want a full-time job.....3
Could not find a full-time job.....4
Family responsibilities.....5
Other (specify) _____6

(c) **When did you take up this job that you held last week?** Month _____ Year_____

(d) **Were you working in this job (even on a part-time basis) before you left school?** Yes .... 1 No 2

[INT: If more than one job held, answers to this and subsequent questions on job held last week should refer to the main or principal job - i.e. the one which accounted for most of the respondent's income last week]

21 Please give the name of the job held last week and a full description of the work done. (If farmer or relative assisting, give acreage. Be sure to describe job exactly. If relevant give rank e.g. Civil Service, Gardai, Army etc)

_____

_____

22 In this job which was held last week, what was your employment status?

Employer..... 1
Self-employed, without paid employees 2
Employee 3
Assisting a relative (not receiving a fixed salary or wage) 4

23 What is/was the nature of the business carried out by your employer (or yourself, if you are self-employed)? (Describe the process carried out, and the end-product, if any.)

_____

_____

24 **Is your father, mother or any other relative the owner or part-owner of the business or farm in which your work or worked) last week?**

Yes.....1 No.....2

25 **What was the total number of hours you worked in this job last week including overtime (if any)?**

Number of hours _____

26a **Was this the normal number of hours worked in this job each week?** Yes..... 1→Go to Q27 No.....2

26b **What was the main reason for not working normal hours?**

Short-time 1
Labour dispute..... 2
Illness, accident or maternity leave 3
Holiday 4
Beginning or end of job..... 5
Overtime 6
On education or training outside the place of work..... 7
Other 8

27. **How much did you earn in this job last week?** (to nearest €)

(a) Gross (before deductions) Gross €_____ (b) Net (i.e. take-home pay) € _____

28a. **Were you receiving any form of training at your place of work during last week?**

Yes ..... 1 No ..... 2 → Go to 29

28b. (If Yes) **In the job where you received this training were you:**

Employed on a Statutory* Apprenticeship Scheme 1
Employed on a Non-Statutory Apprenticeship Scheme 2
Receiving other type of training 3
*Statutory Apprenticeship is one where apprentice is entitled to FÁS Apprentice Registration Card.

29. How did you first hear about your present job (or job you did last week)? (Code one of the following.)

Through FÁS (Training and Employment Authority)..... 1
Through the Local Employment Services 2
From an advertisement in the newspaper 3
By phoning/writing to/calling on employers..... 4
Through personal contacts (i.e. from relatives, friends etc.)..... 5
Through school careers' guidance service 6
Through work experience placement..... 7
Through private agency..... 8
Internet/Web/ Teletext. 9
Other (specify)_____ 10

30. **To what extent do you feel that the education and/or training which you had completed when you applied for your current job (or job you held last week) was important in actually getting the job. In terms of *GETTING* the job would you say that your education and/or training were**

Very Important	Quite Important	Not Very Important	Of no Importance at all
1	2	3	4

31. **How useful has the education and/or training which you had completed BEFORE you secured your current job (or job you held last week) been to you in carrying out your present work? Would you say it has been:**

Very Useful... 1 Useful... 2 Not very useful... 3 No use at all... 4

32. **In general, thinking back to the education and/or training which you received how useful do you feel this was to you in the following areas of work and life in general? How relevant was your education and/or training in terms of:**

	Very Useful	Useful	Not Very Useful	No Use At All
(i) interpersonal communications	1	2	3	4
(ii) computer skills/ability	1	2	3	4
(iii) the work experience it provided before leaving school	1	2	3	4
(iv) the subjects/disciplines take as a preparation for life skills	1	2	3	4

(Int: Ask Question 33 of all respondents, even if employed at present.)

33. **What is your situation now with regard to looking for work?**

Looking for work now ..... 1 → Go to 34
About to start looking for work ..... 2 → Go to 35
Stopped looking as new job has been obtained ..... 3 → Go to 35
Not looking for work ..... 4 → Go to 35

If looking for work, (code 1 above) ask Questions 34a - Question 34c. If not, go to Question 35.

34. (a) **Since when have you been continuously looking for work**

Since_____ (DAY) _____ (MTH) _____(YR)

(b) **What kind of work are you looking for?** (Give the name of the job and a description of the type of work done. Be specific about the type of work sought.)

_____

_____

(c) **Are you available for work immediately? (i.e. within two weeks)**

Immediately ..... 1 Not immediately 2

INT. ASK QUESTION 35 OF ALL RESPONDENTS –
Q35-40b RELATE TO SITUATION AT THE END OF MAY 2002 – the time of the World Cup last summer

35. **Perhaps you could cast your mind back to the 31st May 2002 – the time of the World Cup last summer. Could you tell me whether or not you held a job in the last week of May 2002, even if this was only a short-term or temporary job. How would you describe this job?**

Regular, full-time..... 1 → Go to Q36
Regular, part-time ..... 2 → Go to Q36
Temporary, full-time..... 3 → Go to Q36
Temporary, part-time ..... 4 → Go to Q36
No job held at end May 2002 ..... 5 → Go to Q40(a)

36 **When did you take up that job which you held at the end of May 2002?**

_____ (month) _____(year)

37a. **Please give the exact name of that job which you held at the end of May 2002 and a full description of the work done.** (If farmer or relative assisting, give acreage. If relevant, give grade or rank e.g. Civil Service, Gardai, Army, etc.)

_____

37b. **What was the nature of the business carried out by your employer (or yourself; if you were self-employed) in the job which you held at the end of May 2002?** (Describe the process carried out and the end-product if any).

_____

_____

38. What was your employment status in this job which you held at the end of May 2002?

Employer..... 1
Self-employed, without paid employees 2
Employee 3
Assisting a relative (not receiving a fixed salary or wage) 4

39a. **What was the total number of hours <u>usually</u> worked per week in that job which you held at the end of May 2002 – the time of the World Cup last summer.**

_____hrs per week

39b. **And how much did you usually earn per week in that job which you held at the end of May 2002.**

(a) Gross (before deductions) Gross €_____ (b) Net (i.e. take-home pay) € _____

Int. If respondent held a job at the end of May 2002 skip to Q41, otherwise ask Q40.

40 (a) **Were you unemployed at the end of May 2002, at the time of the World Cup last summer?**

Yes.... 1 No .... 2 → Go to 41(a)

40 (b) **Thinking back to that period of unemployment which you were experiencing at the end of May 2002, when did that period of unemployment begin?**

_____day _____(mth) _____(yr.)

41. (a) **Have you ever looked for work of any sort?** Yes.... 1 No.... 2 → Go to 42(a)

(c) What are (or were) the main ways in which you look (or looked) for work? (If more than one method used, place number 1,2, etc. in the boxes to indicate which method you think is most important. If only one method used, enter 1 in the appropriate box).

- Registered with FÁS – the Training and Employment Authority ☐
- Registered with private agency ☐
- Responded to advertisements in newspapers etc. ☐
- By writing to/calling on employers ☐
- Placing advertisement in newspapers etc. ☐
- Personal Contacts ☐
- Internet/Web/Teletext ☐
- Other (specify)_____ ☐

42. (a) **Apart from an apprenticeship, were you ever offered a place on any state-sponsored scheme for unemployed young people since leaving school? Here is a list of the principal schemes.** (Show card B and read out list excluding category 1, apprenticeship.) **Which scheme(s) have you participated in?** (If none, write "none" below and go to Question 43). **Please name each scheme on which you were offered a place and state when you started on the scheme and when your participation ended.** (If respondent refused the offer, write "offer refused" under "starting date". If still participating, write "still participating" under "ending date".)

			STARTING DATE		ENDING DATE	
SCHEME NAME		Code from CARD B	Month	Year	Month	Year
1.		42.1	42.2	42.3	42.4	42.5
2.		42.6	42.7	42.8	42.9	42.10

(b) **Think now of this (most recent) scheme, how satisfied are/were you with it?**

Very satisfied..... 1 Satisfied..... 2 Dissatisfied..... 3 Very Dissatisfied..... 4

(c) **Why were you dissatisfied with the scheme? Please specify as fully as possible. What did you think you would get from it which you did not?**

_____

_____

43. Are you currently undergoing any form of education or training at a college or institution?

Yes, full-time . . . 1 | Yes, part-time . . 2 | No . . . . 3 → Go to 46

44(a). Give the name and address of the college or institution you are attending.

_____

_____

(b) (If attending full-time education) **Are you receiving (did you receive) any type of scholarship or grant for attendance at third level to cover such expenses as fees or maintenance?**

Yes ..... 1 | No 2

(c) **Was this:**

Higher Education Grant from Local Authority (under 1968 Act) 1
VEC Scholarship (transfers from Cert/Diploma to degree) 2
Trainee Grant Scheme (Cert/Diploma in ITs) 3
Other grant scheme (specify) _____ 4

45. (a) **Give brief details of the main course(s) you are now following** (e.g. B.A. History and English, National Certificate – Mechanical Engineering).

_____

_____

(b) **Date Course Started:** Month_____ Year_____

(c) **Expected total duration of course from beginning to end:**_____Months

(d) **What qualification or certificate is normally given on successful completion of this course?**

Bachelor's or Higher Degree 1
Diploma (minimum 3 years, recognised by HETAC) 2
Certificate (minimum 2 years, recognised by HETAC) 3
Other type of qualification 4

46. Thinking back to the end of May 2002 – the time of the World Cup last summer- were you undergoing any form of education or training at a college or institution.

Yes, full-time ... 1 | Yes, Part-time ... 2 | No, ... 3 → Go to 50

47. Give the name and address of the college or institution you were attending at the end of May 2002.

_____

_____

48. What qualification or certificate is normally given on successful completion of this course which you were attending at the end of May 2002?

Bachelor's or Higher Degree 1
Diploma (minimum 3 years, recognised by HETAC) 2
Certificate (minimum 2 years, recognised by HETAC) 3
Other type of qualification 4

49. Are you still on this course, did you complete it or did you leave before completion?

Still on course ..... 1 | Completed course ..... 2 | Left Before Completion 3

50. Were you resident in Ireland (Republic) on each of the following dates?

	Yes	No
End of September 2001	Y	N
End of December 2001	Y	N
End of March 2002	Y	N
End of June 2002..	Y	N
End of September 2002	Y	N

51. Which of the following best describes (a) your Father's current situation (b) your Mother's current situation with regard to employment?

	(a)Father	(b)Mother
At work as an employee	1	1
At work as an employer	2	2
Self-employed without employees	3	3
Unemployed	4	4
Retired	5	5
Engaged on home duties	6	6
Unable to work due to disability	7	7
Deceased	8	8
Other	9	9

52a. What is (or was) your Father's main occupation? (If farmer or relative assisting, state acreage.)

_____

_____

52b. What is (or was) your Mother's main occupation? (Applies only if Mother worked outside the home at some stage. If farmer or relative assisting, state acreage.)

_____

_____

53 Could you tell me the highest level of education reached by your (a) father and (b) your mother.

(a)FATHER		(b)MOTHER	
None/Primary not completed	☐1	None/Primary not completed	☐1
Primary or equivalent	☐2	Primary or equivalent	☐2
Junior/Inter Cert/Group Cert or equiv	☐3	Junior/Inter Cert/Group Cert or equiv	☐3
Leaving Cert or equivalent	☐4	Leaving Cert or equivalent	☐4
Diploma/Certificate	☐5	Diploma/Certificate	☐5
Primary Degree or higher	☐6	Primary Degree or higher	☐6
Don't know	☐7	Don't know	☐7

54a Is your father Irish? Yes .....1 No .....2 **(b)Which country does he come from?**_____

55a Is your mother Irish? Yes .....1 No .....2 **(b)Which country does she come from?**_____

56 Are you a member of the Travelling Community? Yes ..... 1 No 2

57a Do you have any chronic, physical or mental health problem, illness or disability? Yes....[1] No..... 2 → Go to 58

57b What is the nature of this illness or disability?_____

_____

57C Are you hampered in your daily activities by this physical or mental health problem, illness or disability?

Yes.....1 No.....2

58 Have you ever considered leaving this part of the country to live and work elsewhere?

Yes .....[1] No 2

59 Do you intend to leave?

Definitely, Yes.....1 Probably Yes .....2 Probably No.....3 Definitely No.....4

60 (If "Yes" i.e. codes 1 or 2 above) **Where do you intend to go?** (Specify county if in Ireland and city and country if abroad.)

_____Area Code_____

61 Could you say how satisfied or dissatisfied you are with your present employment (unemployment) situation?

Very satisfied.....1 Satisfied.....2 Dissatisfied.....3 Very Dissatisfied 4

Thank you very much for your co-operation

Bibliography

Abernethie, L. 1998. "Child labour in Contemporary Society: Why Do We Care?" *The International Journal of Children's Rights* 6:81-144.

Adam, F. and B. Roncevic. 2003."Social capital: recent debates and research trends." *Social Science Information* 42(2): 155-183.

Agresti, A. 1996. *An Introduction to Categorical Data Analysis*. New York; Chichester: Wiley.

Ahier, J., R. Chaplin, R. Linfield, R. Moore and J. Williams. 2000. "School Work Experience: young people and the labour market." *Journal of Education and Work* 13:273-288.

Ainsworth, J. W. and V.J. Roscigno. 2005. "Stratification, School-Work Linkages and Vocational Education." *Social Forces* 84:257-284.

Allmendinger, J. 1989. "Educational Systems and Labour Market Outcomes." *European Sociological Review* 5:231-250.

Altonji, J.G. 1994. "The Effects of High School Curriculum on Education and Labour Market Outcomes." *The Journal of Human Resources* 30: 409-438.

Arensberg, C.M. and S.T. Kimball. 1948. *Family and Community In Ireland.* Cambridge, Mass: Harvard University Press.

Arensberg, C.M. and S.T. Kimball. 1968. *Family and Community In Ireland.* Cambridge, Mass: Harvard University Press.

Armstrong, D. M. and D. McVicar. 1998. *Value added in further education and vocational training in Northern Ireland.* Belfast: Northern Ireland Economic Research Centre.

Arum, R. and Y. Shavit. 1995. "Secondary vocational education and the transition from school to work." *Sociology of Education* 68: 187-204.

Ashton, D., M. Maguire. 1987. *The structure of the youth labour market: Some implications for education policy* Lewes: Falmer Press.

—. and M. Spilsbury. 1990. *Restructuring the Labour Market: The Implications for Youth.* London: The Macmillan Press Ltd.

Ayalon, H. and A. Yogev. 1997. "Students, schools and enrollment in Science and Humanity courses in Israel Secondary Education." *Educational Evaluation and Policy Analysis* 19:339-353.

Bachman, J.G. 1993. "How Part-Time Work Intensity Relates to Drug Use, Problem Behaviour, Time Use, and Satisfaction among High School Seniors: Are These Consequences or Merely Correlates? " *Developmental Psychology* 29:220-35.

Bar-On, A. 1997. "Criminalising Survival: Images and Reality of Street Children." *Journal of Social Policy* 26:63-78.

Barnardos. 2005. *Seven steps to ending child poverty*. Dublin: Barnardos.

Barnhouse, P. and P.J. O'Connell. 1988. "The Family Economy, Work, and Educational Participation in the United States, 1890-1940." *American Journal of Sociology* 93:1116-1152.

Barnow, B.S., G. Cain and A.S. Goldberger. 1980, "Issues in the analysis of Selectivity Bias" *Evaluation Studies Review Annual Volume 5* ed By E.Stromsdorfer and G. Farkas. San Franciso: Sage pp290-317.

Baron, S., J. Field and T. Schuller (eds). 2000. *Social Capital: Critical Perspectives.* Oxford: Oxford University Press.

Bates, I. 1984. *Schooling for the dole? the new vocationalism.* Basingstoke; London: Macmillan: Humanities Press.
Becker, G. S. and N. Tomes. 1986. "Human-Capital and the Rise and fall of Families." *Journal of Labor Economics* 4:S1-S39.
Becker, G.S. 1964. *Human Capital.* Columbia: Columbia University Press
—. 1975. *Human Capital.* Columbia: Columbia University Press 2nd Edition.
—. 1993. *Human Capital.* Columbia: Columbia University Press. 3rd Edition.
Beduwe, C and J.F. Giret. 2002. "Early labour force experience and transition from school to work in France." in *European Research Network on Transitions in Youth.* European University Institute, San Domenicodi.
Bechhofer, F. and L. Paterson. 2000. *Principles of Research Design in the Social Sciences.* London: Routledge.
Bell, C., C. Howieson, K. King and D. Raffe. 1988. "Education-Industry Liason in Scotland " in *Working Paper 6* Edinburgh University of Edinburgh
Ben-Porath, Y. 1967. "The Production of Human Capital and the Life Cycle of Earnings" *Journal of Political Economy* 75:352-365.
Bennell, P. and M. Ncube. 1994. "Jobs for the Boys? The Employment Experiences of Secondary School-Leavers in Zimbabwe." *Journal of South African Studies* 20:301-316.
Berk, R. A. 1986. "An introduction to sample selection bias in sociological data" *American Sociological Review* 48:386-398.
Bills, D.B. 2003. "Credentials, Signals, and Screens: Explaining the Relationship Between Schooling and Job Assignment." *Review of Educational Research* 73(4): 441-469.
Birdthistle, N., B. Hynes and P. Flemming. 2007. "Enterprise education programmes in secondary school in Ireland: A multi-stakeholder." *Education and Training* 49:265-276.
Bishop, J.H. and F. Mane. 2004. "The impacts of career-technical education on high school labour market success" *Economics of Education Review* 23:381-402.
Blau, P.M. and O.D. Duncan. 1967. *The American Occupational Structure.* New York: Wiley.
Blaug, M. 1976. "The Empirical Status of Human Capital Theory: A Slightly Jaundiced Survey." *Journal of Economic Literature* 14:827-855.
Blossfeld, H.P., E. Kiljzing, M. Mills and K. Kurz. 2005. "Globalization, Uncertainty and Youth in Society." Pp.452 in *Routledge advances in sociology.* London: Routledge.
Boland, J. and G. McNamara. 1994. "The Reform of Senior Cycle Educational Provision in the Republic of Ireland: A Proposal for Radical Change " *Irish Educational Studies* 13:180-195.
Bolton, A., C. Pole and P. Mizen. 2001. "Picture This: Researching Child Workers" *Sociology* 35:501-518.
Borghans, L., A. De Grip and H. Heijke. 1996. "Labour Market Information and the choice of vocational specialization." *Economics of Education Review* 15:59-74.
Borooah, V.K. 2002. *Logit and probit: ordered and multinomial models.* Thousand Oaks, California; London: Sage Publications.
Bourdieu, P. 1977. *Outline of a Theory of Practice.* Cambridge Cambridge University Press.

—. 1984. *Distinction: A Social Critique of the Judgement of Taste.* London and New York: Routledge and Kegan Paul.
—. and J.C. Passeron. 1990. *Reproduction in Education, Society and Culture* London Sage.
—. 2007. "The Forms of Capital" in Sadovnik, A.R. (ed) *Sociology of Education: A Critical Reader.* London: Routledge.
Bowles, S. and H. Gintis. 1976. *Schooling in Capitalist America* London: Routledge.
Brannen, J. and A. Nilsen. 2002. "Young People's Time Perspectives: From Youth to Adulthood." *Sociology* 36:513-537.
Bray, N. 1996. *The Leaving Certificate Applied :Issues in Education* Dublin: Association of Secondary Schools.
Breen, R. 1985. "The Sociology of Youth Unemployment." *Administration* 33:167-186.
—. 1986. "Does Experience of Work Help School Leavers to Get Jobs?" *Sociology-the Journal of the British Sociological Association* 20:207-227.
—. 1988. "The Work Experience Programme in Ireland." *International Labour Review* 127:429-444.
—. 1991. *Education, Employment and Training in the Youth Labour Market* General Research Series No. 152, Dublin: The Economic and Social Research Institute.
—. 1992. "Job Changing and Job Loss in the Irish Youth Labour Market: A Test of a General Model." *European Sociological Review* 8: 112-125.
—. and Whelan, C.T. 1993. "From Ascription to Achievement? Origins, Education and Entry to the Labour Force in the Republic of Ireland during the twentieth Century." *European Sociological Review* 21:125-134.
—. and D.F. Hannan and R. O'Leary. 1995. "Returns to Education: Taking Account of Employers' Perceptions and Use of Educational Credentials." *European Sociological Review* 11:59-73.
—.1998. "The Persistence of Class Origin Inequalities among School Leavers in the Republic of Ireland, 1984-1993." *The British Journal of Sociology* 49:275-298.
—. and J.O. Jonsson. 2000. "Analysing Educational Careers: A Multinomial Transition Model." *American Sociological Review* 65:754-772.
—. 2005. "Explaining cross-national variation in youth unemployment - Market and institutional factors." *European Sociological Review* 21:125-134.
—. 2006. "Statistical Models of Educational Careers." Nuffield College, Oxford
Brinton, M.C. and T. Kariya. 1998. "Institutional Embeddedness in Japanese Labor Markets " in *The new institutionalism in Sociology*, edited by M. C. Brinton and V. Nee. Stanford, California Stanford University Press.
—.2000. "Social capital in the Japanese youth labour market: Labour market policy, schools and norms." *Policy Sciences* 33:289-306.
Brooks-Gunn, J., Greg J. Duncan, P. Kato-Klebanov and N. Sealand. 1993. "Do Neighbourhoods Influence Child and Adolescent Development?" *The American Journal of Sociology* 99:353-395.
Brown, S. and J.G. Sessions .1999. "Education and Employment Status: a test of the strong screening hypothesis in Italy." *Economics of Education Review* 18:397-404.

Bynner, J., E. Ferri and P. Shepherd. 1997. *Twenty-something in the 1990s : getting on, getting by, getting nowhere.* Aldershot: Ashgate.
Byrne, D. 2002. *Declining inequality? Examining patterns of entry to third level students in the Republic of Ireland* Unpublished M.Sc. Thesis, University of Dublin: Trinity College.
—. and E. Smyth. forthcoming. *Parental Involvement in Post-Primary Education.* Final report submitted to the National Council for Curriculum Assessment (NCCA).
Canny, A. 2001. "Researching the transition from school to work: a comparative perspective." *Journal of Social Welfare and Family Law* 23:363-372.
—. 2002. "Flexible Labour? The Growth of Student Employment in the UK." *Journal of Education and Work* 15:277-301.
Carr, R.V., J.D. Wright and C.J. Brody. 1996. "Effects of High School Work Experience a Decade Later: Evidence from the National Longitudinal Survey." *Sociology of Education* 69:66-81.
Caspi, A. 1998. *Personality development across the life course* in W. Damon and N. Eisenberg (Eds.), *Handbook of Child Psychology, Vol. 3: Social, emotional, and personality development* (pp. 311-388). New York: Wiley.
Clancy, P. 1985. "Demographic Change and the Irish Family" in *The Changing Family* Dublin The Family Studies Unit, University College Dublin
Coleman, J.S. 1961. *The adolescent society: the social life of the teenager and its impact on education.* New York: Free Press of Glencoe.
—. 1966. Equality of Educational Opportunity.
—. 1974. *Youth: Transition to Adulthood.* Report of the Panel on Youth of the President's Science Advisory Committee. Chicago: University of Chicago Press.
—. 1984. "The Transition from School to Work" *Research in Stratification and Mobility* 3:27-59.
—. 1987. *Public and Private Schools: The Impact of Communities.* New York: Basic Books.
—. 1988. "Social capital in the creation of human capital." *American Journal of Sociology* 94(Supplement): 95-121.
—. 1990. "Flexible Capital " in *Foundations of Social Theory* Cambridge, Massachusetts and London: The Belknap Press of Harvard University Press.
—. 1994. *Foundations of Social Theory* Cambridge, Massachusetts and London: The Belknap Press of Harvard University Press.
Collins, R. 1979. *The Credential Society: An Historical Sociology of Education and Stratification.* New York: Academic Press.
Coolahan, J. 1980. *Irish Education: History and Structure* Dublin Institute of Public Administration
Corbett, M. and L. Kerrins. 2004. *Child Poverty in Ireland: An Overview* Dublin Children's Right Alliance.
Cunningham, H. 2000a. "The Decline of Child Labour: Labour Markets and Family Economies in Europe and North Africa since 1830." *The Economic History Review* 53:409-428.
Cunningham, S. 2000b. *Child labour in Britain 1900-1973*: University of Central Lancashire.

Curtin, C. 1986. The Peasant family farm and commoditization in the West of Ireland. In *The Commoditization Debate: Strategy and Social Network,* edited by N. Long, J. Douwe van der Ploeg, C. Curtin and L. Box. pp. 58-76. Papers of the Department of Sociology No 17. Agricultural University of Wageningen, The Netherlands.

D'Amico, R. 1984. "Does Employment During High School Impair Academic Progress?" *Sociology of Education* 57:152-164.

Dagenais, M., C. Montmarquette and N. Viennot-Briot. 2002. "Dropout, School Performance and Working While in School: An Econometric Model with Heterogeneous Groups": CIRANO.

Daly, M. and M. Leonard. 2002. *Against All Odds: Family Life on a low income in Ireland* Dublin: Combat Poverty Agency in association with the IPA.

Darmody, M. and E. Smyth. 2005. *Gender and Subject Choice: Take-up of Technological Subjects in Second Level Education* Dublin: The Liffey Press in association with The Economic and Social Research Institute.

Davies, P. 1999. "Learning and Earning: The impact of paid employment on young people in full-time education."

Degenne, A. and M. Forse. 2003. The concept of social capital: a consideration of a definition and an empirical application.

Denny, K. and C.P. Harmon. 2000. *The Impact of Education and Training on the Labour Market Experience of Young Adults.* University College Dublin, Economics Department, Working Paper 00/01.

Delci, M. and D. Stern. 1999. *Who Participates in New Vocational Programs?: A preliminary Analysis of Student Data from NLSY97.* National Centre for Research in Vocational Education, University of California: Berkeley

Devine, D., M. Nic Giolla Phadraig and J. Deegan. year. *Time for Children - Time for Change? Children's Rights and Welfare in Ireland during a period of Economic Growth.* in Devine, D. (ed) *Children's Welfare in Ageing Europe.*

De Vries, M. R. and M. H. J. Wolbers. 2005. "Non-standard employment relations and wages among school leavers in the Netherlands." *Work Employment and Society* 19:503-525.

DeMaris, A. 1995. "A Tutorial in Logistic Regression." *Journal of Marriage and the Family* 57:956-968.

Department for Education and Science. 2000. Transition Year Programmes: Guidelines for Schools.

—. 2007. *Se Si: Gender in Irish Education* Department of Education and Science: Dublin.

Doyle, E. 1990. "The Transition Year." in G. McNamara, K. Williams, and D. Herron (eds) *Achievement and Aspiration: Curricular Initiatives in Irish Post Primary Education since the 1980s.* Dublin: Drumcondra Teachers Centre.

Dustmann, C., J. Micklewright, N. Rajah and S. Smith. 1996. "Earning and Learning: Education Policy and the Growth of Part-time Work by Full-time Pupils." *Fiscal Studies* 17:79-103.

—. and N. Rajah and S. Smith. 1997. "Teenage Truancy, Part time Working and Wages." *Journal of Population Economics* 10:425-442.

—. 2004. "Parental background, secondary school track choice and wages." *Oxford Economic Papers* 56:209-230.

—. and A. Van Soest. 2007. "Part time work, School Success and School Leaving." *Empirical Economics* 32:277-299.
Eckstein, Z. and Wolpin, K.I. 1999. "Why Youth Drop Out of School: The impact of preferences, opportunities and abilities" *Econometrica* 67:1295-1339.
Ehrenberg, R.G. and Sherman, D.R. 1987. "Employment while in College, Academic Achievement and Post School Outcomes: A Summary of Results" *The Journal of Human Resources* 22:1-23.
Eivers, E., E. Ryan and A. Brinkley. 2000. "Characteristics of Early School Leavers: Results of the Research Strand of the 8-15 Year old Early School Leavers Initiative." Dublin Educational Research Centre, St. Patrick's College.
End Child Poverty Coalition. 2005. *Child Poverty in Ireland 2005: An Overview* Dublin End Child Poverty Coalition
Entwisle, D.R., K. L. Alexander and L.S. Olson. 2000. "Early Work Histories of Urban Youth." *American Sociological Review* 65:279-297.
Erikson, E.H. 1968. *Identity: Youth and Crisis.* New York: Norton.
Fahey, T. 2002. "The family economy in the development of welfare regimes: A case study." *European Sociological Review* 18:51-64.
—. and E. McLaughlin. 1999. "Family and State " in *Ireland North and South*, edited by A. Heath, R. Breen and C. T. Whelan: The British Academy
Feinberg, R (1977) "Risk-aversion, Risk and the Duration of Unemployment," *Review of Economics and Statistics*, 59(3), pp. 264-271.
Finn. C. 1984. Leaving School and Growing Up: Work experience in the juvenile labour market.
Forfas, Expert Group of Future Skill Needs. 2002. *The fourth report of the Expert Group on Future Skill Needs* Dublin: Foras.
Fukuyama, F. 1995. *Trust* Free Press: New York.
Fullarton, S. 1999. "Work Experience and Work Placements in Secondary School Education." Victoria: Australian Council for Educational Research.
—. 2001. "VET in Schools: Participation and Pathways " in *Longitudinal Surveys of Australian Youth, Research Report 21.* Victoria Australian Council for Educational Research
Furlong, A. and F. Cartmel. 1997. *Young people and social change: individualization and risk in late modernity.* Buckingham; Philadelphia: Open University Press.
Gamarnikow, E. and A. Green. 1999. *Developing Social Capital: dilemmas, possibilities and limitations in education* Londres: Kogan and Kogan.
Gambetta, D. 1987. *Were they pushed or did they jump?: Individual decision mechanisms in education.* Cambridge: Cambridge University Press.
Gamoran, A. 1987. "The stratification of high school learning opportunities." *Sociology of Education* 60: 135-155.
—. and R.D. Mare. 1989. "Secondary school tracking and educational inequality: Compensation, reinforcement or neutrality?" *American Journal of Sociology* 95: 1146-1183.
—. 1992. "Access to Excellence: Assignment to Honors English Classes in the Transition from middle to high school". *Educational Evaluation and Policy Analysis* 14:185-204.
—. 1998. 'The impact of academic course work on labour market outcomes for youth who do not attend college' In A. Gamoran and H. Himmelfarb (Eds.), *The quality of vocational education: Background paper from the 1994 national*

assessment of vocational education. Washington, DC: US Department of Education.
Gangl, M. 2000. "Changing Labour Markets and Early Career Outcomes: Labour Market Entry in Europe over the past decade." MZES.
—. 2002. "Changing labour markets and early career outcomes: labour market entry in Europe over the past decade." *Work Employment and Society* 16:67-90.
—., W. Muller and D. Raffe. 2003. "Conclusions: explaining cross-national differences in school-to-work transitions" in Müller, W. and M. Gangl (eds) *Transitions from Education to Work in Europe* Oxford: Oxford University Press.
Gash, V. 2004a. "Bridge or Trap? To what extent do Temporary Workers make more transitions to Unemployment than to the Standard Employment Contract? A Comparative analysis of Denmark, France and the United Kingdom." in *Employment Relationships at Risk* Berlin: Max Planck Institute.
—. 2004b. "The Quality of Atypical Employment and the Poverty Risk of Atypical Workers: A Comparative Analysis of the Irish and Danish Context."
Gayle, V. 1996. "Modelling Tabular Data with Ordered Outcome." *Sociological Research Online* 1.
Gibbon, P. and C. Curtin. 1983. "Irish Farm Families: Facts and Fiction." *Comparative Studies in Society and History* 25:375-380.
Gilligan, R. 2000. "Adversity, Resilience and Young People: The Protective Value of Positive School and Spare Time Experiences " *Children and Society* 14:37-47.
Gleeson, J. and G. Granville. 1996. "The case of the Leaving Certificate Applied." *Irish Educational Studies* 15:113-132.
—. 1998. "A Consensus Approach to Policy Making: The Case of the Republic of Ireland" in Finlay, I., S. Niven and M. Young (eds) *Changing Vocational Education and Training: An International Perspective* London; New York: Routledge.
—., A. Clifford, T. Collison, S. O'Driscoll, M. Rooney and A. Tuohy. 2002. "School culture and curriculum change: The case of the Leaving Certificate Applied " *Irish Educational Studies* 21:21-44.
Goldstein, H. 1997. *Multilevel Statistical Models. Second Edition.* London: Edward Arnold.
Goldthorpe, J. 2000. "The Quantitative Analysis of Large Scale Data Sets and Rational Action Theory: For a Sociological Alliance " Pp. 94-114 in *On Sociology: Numbers, Narratives and the Integration of Research and Theory* edited by J. Goldthorpe. Oxford Oxford University Press
Goodwin, J. and H. O'Connor. 2005. "Exploring complex transitions: Looking back at the 'Golden age' of from school to work." *Sociology-the Journal of the British Sociological Association* 39:201-220.
Government of Ireland. 2000. "Programme for prosperity and fairness." Pp. 134 p. in *No.Y/65*. Dublin: Stationery Office on behalf of the Department of the Taoiseach.
Granovetter, M. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91:481-510.

Grasky, S. 1996. "Exploring the effects of childhood family structure on teenage and young adult labor force participation" IRB Discussion Papers 1111-96. Madison, WI: Institute for Research on Poverty.

Greenberger, E. and L.D. Steinberg. 1983. "Sex Differences in Early Labour Force Experience: Harbinger of Things to Come?" *Social Forces* 62:467-486.

—. and L.D. Steinberg. 1986. *When Teenagers Work: The Psychological and Social Costs of Adolescent Employment.* New York: Basic Books.

Griffiths, T. and D. Guile. 2000. Learning and Work Experience: European Perspectives on policy, theory and practice. In Manning, S. and D. Raffe (Eds) VETNET VETNET ECER 2000 proceedings: Current research in European vocational education and human resource development. Berlin: Wissenschaftsforum Bildung und Gesellschaft e.V

Grubb, N.W. 1989. "Preparing Youth for Work: The Dilemma of Education and Training Programs" in *Adolescence and Work: Influences of Social Structure, Labor Markets and Culture* edited by D. Stern and D. Eichorn Hillsdale, New Jersey:Lawrence Erlbaum Associates.

Haase, T. and J. Pratschke. 2005. *Deprivation and its Spatial Articulation in the Republic of Ireland* Dublin Area Development Management Ltd.

Hakim, C. 1987. Research Design: Strategies and Choices in the Design of Social Research. Routlege.

Hakim, C. 1998. "Working Students: Students in Full time Education with Full Time and Part-Time Jobs." in *Social Change and Innovation in the Labour Market*, vol. 1, edited by C. Hakim. Oxford: Oxford University Press.

Hall, P.A. and D. Soskice. 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage.* New York: Oxford University Press.

Hallinan, M. and R.A. Williams. 1990. "Students' Characteristics and the Peer-Influence Process." *Sociology of Education* 63:122-132.

Halaby, C.N. 2003. "Where Job Values come from: Family and Schooling Background, Cognitive Ability and Gender." *American Sociological Review* 68:251-278.

Haley, W. 1973. "Human Capital: The Choice between investment and Income" *The American Economic Review pp*929-944.

Halpin, B. 2002. "Logistic Regression and Loglinear Modelling " in *Swiss Summer School, Lugano.*

Hamilton, S.F. 1994."Social roles for youth: Interventions in unemployment" Pp. 248- 268 in *Youth Unemployment and Society* edited by A.C. Petersen and J. T. Mortimer: Cambridge University Press, Cambridge.

Hannan, D. and L.A. Katsiaouni. 1977. *Traditional families?: from culturally prescribed to negotiated roles in farm families.* Dublin: Economic and Social Research Institute.

—. and R. Breen, B. Murray, D. Watson, N. Hardiman, K. O'Higgins. 1983. *Schooling and Sex Roles: Sex Differences in Subject Provision and Student Choice in Irish Post Primary Schools,* Paper No. 113. Dublin: The Economic and Social Research Institute.

—. and S. Shortall. 1991. *The quality of their education: school leavers' views of educational objectives and outcomes.* General Research Series No. 153. Dublin: The Economic and Social Research Institute.

—. and S. Ó Riain. 1993. *Pathways to adulthood in Ireland: causes and consequences of success and failure in transitions amongst Irish youth.* Dublin: The Economic and Social Research Institute.
—., E. Smyth, L. McCullagh, J. O'Leary and R. McMahon. 1996. *Coeducation and gender equality: exam performance, stress and personal development* Dublin: Oak Tree Press in association with The Economic and Social Research Institute.
—. and D. Raffe and E. Smyth. 1997. "Cross National Research on School to Work Transitions: An Analytical Framework " Pp. 409-42 in *Youth Transitions in Europe: Theories and Evidence* edited by P. Werquin, R. Breen and J. Plans: Cereqe.
—. and A. Doyle. 2000. "Changing School-to-work transitions: Three Cohorts 1982-1987; 1986-1992; 1992-1998." Dublin: ESRI Working Paper.
—. and S. McCoy and A. Doyle. 2003. *Expanding Post-School Learning Opportunities: Nature and Effects of Growth in Post-School Education/Training in the 1990s.* Dublin: The Economic and Social Research Institute.
Harslof, I. 2006. "The impact of welfare and labour market institutions on informal recruitment in European labour markets." *European Societies* 8:555-576.
HEA. 2000. *EuroStudent: Social and Economic Conditions of Student Life in Europe 2000* www.hea.ie
Healy, T. 2001. International evidence for the impact of social capital on well-being
Hedstrom, P. and R. Swedberg. 1996. "Rational Choice, Empirical Research and the Sociological Tradition." *European Sociological Review* 12:127-146.
Heinz, W.R. 1999. *From education to work: cross-national perspectives.* New York: Cambridge University Press.
Hillage, J. , S. Honey, J. Kodz and G. Pike. 1996. "Pre 16 Work Experience in England and Wales." Brighton: Institute of Employment Studies.
—. and J. Kodz and G. Pike. 2001. "Pre-16 Work Experience Practice in England: An Evaluation." Brighton: Institute of Employment Studies.
Hobbs, S. and J. Mckechnie. 1997. *Child Employment in Britain: a social and psychological analysis.* Edinburgh: The Stationery Office.
Hodgson, A. and K. Spours. 2001. "Part-Time Work and Full-Time Education in The UK: the emergence of a curriculum and policy issue." *Journal of Education and Work* 14:373-388.
Hodkinson, P. and A.C. Sparkes. 1997. "Careership: a sociological theory of career decision making." *British Journal of Sociology of Education* 18:29-44.
Holland, A. and Andre, T. 1987. "Participation in extra-curricular activities in secondary school: what is known, what needs to be known?" *Review of Educational Research* 57:437-466.
Hossler, D., Schmit, J., & Vesper, N. (1999). Going to college: How social, economic, and educational factors influence the decisions students make. Baltimore: Johns Hopkins University Press.
Hosmer, D.W. and S. Lemeshow. 2000. *Applied Logistic Regression* New York: Wiley Inter-science
Hotz, J.V., L.C. Xu, M. Tienda and A. Ahituv. 2003. "Are there returns to the wages of young men from working while in school?" *The Review of Economics and Statistics* 84:221-236.

Howieson, C. 1990. "Beyond the gate: work experience and part-time work among secondary-school pupils in Scotland." *British Journal of Education and Work* 3:49-61.
—. and L. Croxford. 1996. "Using the YCS to analyse the outcomes of careers education and guidance " in *Research Studies RS40*, edited by DFEE. London The Stationery Office.
—. D. Raffe, K. Spours and M. Young. 1997. "Unifying Academic and Vocational Learning: the state of the debate in England and Scotland." *Journal of Education and Work* 10:5-35.
—. and S. Semple. 2006. "Career guidance in Scotland: retrospect and prospect." *British Journal of Guidance and Counselling* 34:31-53.
Iannelli, C. and D. Raffe. 2000. "Vocational Upper Secondary Education and the Transition from School." in *European Society or Societies? EuroConference on Educational Differentiation in European Societies: Causes and Consequences*. Giens.
—. and D. Raffe. 2006. "Vocational Upper-Secondary Education and the Transition from School." *European Sociological Review* 23:49-63.
—. 2007. "Inequalities in Entry to Higher Education: a Comparison over Time between Scotland and England and Wales." *Higher Education Quarterly* 61:306-333.
Ingram, P. and K. Clay. 2000. "The Choice-Within-Constraints New Institutionalism and Implications for Sociology." *Annual Review of Sociology* 26:525-546.
Inui and Hosogane. 1995. Education as a foundation for work? The efficiency problems of the Japanese upper secondary school. World Year Book of Education.
Ivacovou, M. 2003. Work rich and work poor couples: polarisation in 14 countries in Europe. EPAG Working Paper Number 45.
Jackson, M. 2001. "Non-Meritocratic Job Requirements and the Reproduction of Class Inequality: An Investigation." *Work, Employment and Society* 15:619-630.
Jenks, C. and Mayer, S.E. 1989. "The social consequences of growing up in a poor neighbourhood" *American Journal of Sociology* 96:329-357.
Jones, K. 1991. *Multilevel Models for Geographical Research* Norwich: University of East Anglia.
Kablaoui, B. N. and A.J. Paulter. 1991. "The effects of part-time work experience on high school students." *Journal of Career Development* 17:195-211.
Kalachek, E. 1969. "Determinants of Teenage Employment." *The Journal of Human Resources* 4:3-21.
—. 1973. "The Changing Status of the Young" *Journal of Youth and Adolescence* 2:125-132.
Kallenberg, A.L. 2000. "Nonstandard Employment Relations: Part time, Temporary and Contract Work." *Annual Review of Sociology* 26:341-65.
Kantor, H. and D.B. Tyack. 1982. Work, Youth and Schooling: Historical Perspectives on Vocationalism in American Education. Stanford: Stanford University Press.
Keithly, D. C. and F.A. Deseran. 1995. "Households, Local Labour Markets and Youth Labour Force Participation." *Youth and Society* 26:463-492.

Kemple, J.J. and Snipes, J. 2000. *Career Academies: Impacts on Students' Engagement and Performance in High School.* Manpower Demonstration Research Corp., New York, NY.
—. 2001. *Career Academies: Impacts on Students' Initial Transitions to Post Secondary Education and Employment.* Manpower Demonstration Research Corporation, New York, NY.
Kerckhoff, A.C. 1976. "The Status Attainment Process: Socialization or Allocation?" *Social Forces* 55: 368-381.
Kiernan, G. and T. Walsh. 2004. "When two are one: The changing nature of early childhood care and education in Ireland." *Irish Educational Studies* 23:1-18.
Koch, R. 1989. *Vocational Education in France: Structural Problems and Present Efforts towards Reform.* European Centre for the Development of Vocational Training, Berlin.
Korpi, T., P. de Graaf, J. Hendrickx and R. Layte. 2003. "Vocational training and career employment precariousness in Great Britain, the Netherlands and Sweden." *Acta Sociologica* 46:17-30.
Lareau, A. "Home Advantage". MaryLand, Rowman and Littlefield Publishers, Inc.
Lavalette, M. 1994. *Child Labour in the Capitalist Market* Aldershot: Avebury Press.
—. J. McKechnie, S. Hobbs and J. Murray. 1991. *The forgotten workforce: Scottish children at work.* Glasgow: Scottish Low Pay Unit, Centre for Scottish Child Law.
—. 1999. "A thing of the past?: child labour in Britain in the nineteenth and twentieth centuries." Pp. viii, 278 p. Liverpool: Liverpool University Press.
Layte, R. and C. T. Whelan. 1999. *Class transformation, qualification inflation and the persistence of class: trends in social fluidity in the Republic of Ireland of Ireland 1973 to 1994.* Dublin: The Economic and Social Research Institute.
—. and P. O'Connell, T. Fahey and S. McCoy. 2005. "Ireland and Economic Globalisation: the experiences of a small open economy." in *Globalisation, Uncertainty and Youth in Society*, edited by H. P. Blossfeld, E. Klijzing, M. Mills and K. Kurz. London Routledge.
—. and B. Maitre, B. Nolan and C.T. Whelan. 2006. *Day in Day Out - Understanding the Dynamics of Child Poverty.* Dublin Combat Poverty Agency.
Lee, S. W. and M. C. Brinton. 1996. "Elite education and social capital: The case of South Korea." *Sociology of Education* 69:177-192.
Lee, V., J.B. Smith and R.B. Croninger. 1997. "How high school organisation influences the equitable distribution of learning in mathematics and science" *Sociology of Education* 70:128-150.
Leney, T., N. Cuddy, and J. Hall. 2003. *Initial Vocational Training and Education in England and the Devolved Administrations of the UK*
—. and A. Green. 2005. "Achieving the Lisbon Goal: the contribution of Vocational Education and Training." *European Journal of Education* 40:261-278.
Leonard, M. 1995. "Labouring to Learn: Students' Debt and Term-time employment in Belfast." *Higher Education Quarterly* 49:229-247.
—. 1998. *Invisible Work, Invisible Workers: The Informal Economy in Europe and the US* Palgrave Macmillan

—. 2000. "Coping Strategies in Developed and Developing Societies: The Workings of the Informal Economy." *Journal of International Development* 12:1069-1085.
—. 2001. "Children's views on children's right to work: reflections from Belfast " *Childhood* 11:45-61.
—. 2003. "Children's attitudes to parents', teachers' and employers' perceptions of term-time employment." *Children & Society* 17:349-360.
—. 2004. "Teenage Girls and Housework in Irish Society." *Irish Journal of Sociology* 13:73-87.
—. 2005a. "Bonding and Bridging Social Capital: Reflections from Belfast " *Sociology* 38:927-944.
—. 2005b. "Children, Childhood and Social Capital." *Sociology* 39:605-622.
Levesque, K., Lauren, D., Teitelbaum, P., Alt, M., Libera, S. and Nelson, D. 1999. *Vocational Education in the United States: Toward the year 2000* Washington D.C.: U.S. Department of Education, National Centre for Educational Statistics.
Levy, R. 1996. "Toward a theory of the life course institutionalization " Pp. 83-108 in *Society and Biography. Interrelationships between Social Structure, Institutions and the Life Course* edited by A. Weymann and W. R. Heinz. Weinheim Deutscher Studien Verlag
Lewin-Epstein, N. 1981. Youth Employment during High School: An Analysis of High School and Beyond. National Centre for Educational Statistics.
Light, A. 1999. "High school employment, high school curriculum and post school wages." *Economics of Education Review* 18:291-309.
—. 2001. "In-School Work Experience and the Return to Schooling." *Journal of Labor Economics* 19:65-93.
Lillydahl, J. 1990. "Academic Achievement and Part Time Employment of High School Students." *Journal of Economic Education* 21:307-316.
Lin, N. 2000. "Inequality in Social Capital." *Contemporary Sociology* 29: 785-795.
Lindsay, P. and W.E. Knox. 1994. "Continuity and Change in Work Values among Young Adults: A Longitudinal Study" *The American Journal of Sociology* 89:918-931.
Lindsay, S., S. Hobbs and J. McKechnie. 1994. "The Employment and Schooling Dilemma " *Education and Training* 36:3-5.
Long, J.S. 1997. *Regression Models for Categorical and Limited Dependent Variables* Thousand Oaks: Sage Publications.
Lucas, S.R. 1993. "Race and Track Assignment: A reconsideration with course-based indicators of track locations" http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/13/c6/4b.pdf
—. 1999. *Tracking Inequality: stratification and mobility in American high schools.* New York: London: Teachers College Press.
—. and M. Berends. 2002. "Sociodemographic Diversity, Correlated Achievement and De Facto Tracking". *Sociology of Education* 75:328-348.
Lynch, K. and A. Lodge. 2002. *Equality and Power in Schools: redistribution, recognition, and representation.* London, New York: Routledge Farmer.
Mare, R.D. 1980. "Social background and school continuation decisions." *Journal of the American Statistical Association* 75:295-305.

Marsh, H.W.1991. "Employment During High School: Character Building or a Subversion of Academic Goals." *Sociology of Education* 64:172-189.
Maurice, M. and F. Sellier. 1979. "A Societal Analysis of Industrial Relations: A Comparison between France and West Germany." *British Journal of Industrial Relations.*
Mayer, S.E. and P.E. Peterson. 1999. *Earning and Learning: How Schools Matter.* New York: Russell Sage Foundation.
McCoy S. 2000. *Do schools count?: Key school structural and process influences on early school leaving*: Queen's University of Belfast.
McCoy, D., Duffy, D. and Smyth, D. (2000) *Quarterly Economic Commentary September 2000.* Dublin: Economic and Social Research Institute.
—. 2001. "Relative Labour Market Disadvantage among the Least Qualified in Ireland, the Netherlands and Scotland, 1979-1997." Comparative Analysis of Transitions from Education to Work in Europe
—. and E. Smyth. 2004a. *At work in school: part-time employment among second-level students*. Dublin: The Liffey Press in association with the Economic and Social Research Institute.
—. 2004b. "At Work In School: Part time Employment and Student Outcomes." Dublin: Economic and Social Research Institute
—. and E. Smyth, M. Darmody and A. Dunne. 2006. *Guidance for All? Guidance Provision in Second-Level Schools* Dublin The Liffey Press in association with the ESRI
McDowell, L. 2002. "Transitions to Work: masculine identities, youth inequality and labour market change." *Gender, Place and Culture* 9:39-59.
—. 2003. *Redundant masculinities? : Employment change and white working class youth*. Oxford: Blackwell.
McGinnity, F., A. Mertens and S. Gundert. 2001. "A bad start? Fixed-term contracts and the transition from school to work in Germany." in *RC28* Neuchatal.
McKechnie, J., S. Lindsay and S. Hobbs. 1994. *Still forgotten: child employment in Dumfries and Galloway*: Scottish Low Pay Unit.
—. and M. Lavalette and S. Hobbs. 2000. "Child Employment Research in Britain " *Work Employment and Society* 14:573-580.
—. and S. Hobbs and S. Anderson. 2004. *School students' part-time employment: An investigation of career-related issues*. Edinburgh: Careers Scotland
McKenna, P. and C. O' Maolmhuire. 2000. "Work Experience in Ireland: Partnerships for future effectiveness." Pp. 90. Dublin: Dublin City University.
McNamara, G. 1989. "The myth of illiberality: Educational Theory and Curriculum Practice." *Irish Educational Studies* 8:99-116.
McNeal, R.B. 1997. "Are Students Being Pulled Out of High School? The Effect of Adolescent Employment on Dropping Out." *Sociology of Education* 70:206-220.
McVicar, D. and B. McKee. 2001. "Part time work during post compulsory education and examination performance: help or hindrance?" Belfast: NIERC.
Menard, S. 2002. *Applied Logistic Regression Analysis* Thousand Oakes, London, New Delhi: Sage.
Metz, M.H. 1978. *Classrooms and Corridors* University of California Press: Berkeley, CA.

Meyer, R.H. and D.A. Wise. 1982. "High School Preparation and Early Labour Force Experience" in *The Youth Labour Market Problem: Its Nature, Causes and Consequences*, edited by R. B. Freeman. Chicago: University of Chicago Press.

Michael, R. T. and N. B. Tuma. 1984. "Youth Employment - Does Life Begin at 16." *Journal of Labor Economics* 2:464-476.

Micklewright, J., N. Rajah and S. Smith. 1994. "Labouring and learning: part time work and full time education." *National Institute Economic Review* 2/94:73-85.

Middleton, S. and J. Loumidis. 2001. "Young people, poverty and part-time work " in *Hidden Hands: International Perspectives on Children's Work and Labour* edited by P. Mizen, C. Pole and A. Bolton, The Future of Childhood Series London Routledge/Falmer.

Miller. A., A.G. Watts, and I. Jamieson. 1991. *Rethinking Work Experience* Falmer Press.

Mills, M. and Blossfeld, H.P. 2004. "Becoming an Adult in Uncertain times: a 14 country comparison of the losers of Globalisation." Paper presented in session 'Transitions to Adulthood in International Context' Friday April 2, 8.30-10.20, PAA 2004 Meeting, April 1-3, 2004, Boston, M.A.

—. and H.P. Blossfeld. 2005. "Globalization, uncertainty and the early life course: A theoretical framework" Pp. 1- 24 in *Globalization, Uncertainty and Youth in Society* edited by H.P. Blossfeld, E. Klijzing, M. Mills, and K. Jurz: Routledge, London and New York

Mincer, J. 1958. "Investment in Human Capital and Personal Income Distribution." *The Journal of Political Economy* 4: 281-302.

—. 1974. *Schooling, Experience and Earnings*, New York: National Bureau of Economic Research.

Mizen, P. 1995. *The state, young people and youth training: in and against the training state.* London: Mansell.

—., A. Bolton and C. Pole. 1999. "School age workers: the paid employment of children in Britain." *Work, Employment and Society* 13: 423-438.

Molitor, C. and D.E. Leigh. 2005. "In-School work experience and the returns to two-year and four-year colleges." *Economics of Education Review* 24:459-468.

Montgomery, J.D. 1992. "Job Search and Network Composition: Implications of the Strength-of-Weak-Ties Hypothesis." *American Sociological Review* 57:

Montmarquette, C., Viennot-Briot, N. and M. Dagenais.2007. "Drop-out, School Performance and Working while in school." *The Review of Economics and Statistics* 89:752-760.

Morgan, M. 2000. *School and Part-time work in Dublin: The Facts*. Dublin: Dublin Employment Pact.

Morgan, S.L. and C. Winship. 2007. Counterfactuals and Causal Inference: Methods and Principles for Social Research. Cambridge University Press: Cambridge.

Mortimer, J.T. and J. Lorence. 1979. "Work Experience and Occupational Value Socialisation: A Longitudinal Study." *American Journal of Sociology* 84:1361-85.

—. and M.D. Finch.1986. "The Development of Self-Esteem in the Early Work Career" *Work and Occupations* 13:217-239.

—., M.D. Finch., S. Ryu, M.J. Shanahan and K.T. Call. 1992. "Work Experience, Mental Health and Behavioural Adjustment in Adolescence." *Journal of Research on Adolescence* 2:25-57.
—. M.D. Finch, K. Dennehy, C. Lee and T. Beebe. 1994. "Work Experience in Adolescence." *Journal of Vocational Education Research* 19:39-70.
—. and E. Efron Pimentel, S. Ryu, K. Nash and C. Lee. 1996. "Part-Time Work and Occupational Value Formation in Adolescence." *Social Forces* 74:1405-1418.
—. C. Harley and J. Staff. 2002."The Quality of Part Time Work and Youth Mental Health." *Work and Occupations* 29:166-197.
—. 2003. *Working and growing up in America*. Cambridge, Mass.; London: Harvard University Press.
Müller, W. and Y. Shavit. 1998. *From School to Work: a comparative study of educational qualifications and occupational destinations*. Oxford: Clarendon Press.
—. and M. Gangl. 2003. *Transitions from education to work in Europe: the integration of youth into EU labour markets*. Oxford: Oxford University Press.
—. 2005. "Transitions from Education to Work: A Review " in *Comparative Analyses of Intergenerational "Inheritance". Report 3.*
Naylor, C. 1999. "How does working part time influence secondary students' achievement and impact on their overall well-being?" Vancouver: B.C. Teachers Federation
NCCA, National Council for Curriculum and Assessment. 2003a. "Report on consultative meetings, seminars and submissions ". Dublin: NCCA
—. 2003b. "Senior Cycle Consultative Paper ". Dublin: NCCA
—. 2004. "Proposals for the future of Senior Cycle Education in Ireland ". Dublin: NCCA
NESF. 2002. .Early School Leavers. National and Economic Social Forum: Dublin.
Neuman, S. and A. Ziderman. 2003. "Can vocational education improve the wages of minorities and disadvantaged groups? The case of Israel." *Economics of Education Review* 22:421-432.
Nolan, B. and T. Callan. 1994. *Poverty and Policy in Ireland* Dublin: Gill and McMillan in association with the Economic and Social Research Institute.
Oakes, J. 1990. "Multiplying Inequalities: The effect of race, social class, and tracking on opportunities to learn Mathematics and Science." RAND, Santa Monica, CA.
—. 1985. *Keeping Track: How Schools Structure Inequality* Yale University Press: New Haven, CT.
O'Connell, P.J. and F. McGinnity. 1997. *Working Schemes? Active Labour Market Policy in Ireland.* Ashgate: Aldershot.
—. 2002. "Are They Working? Market Orientation and the Effectiveness of Active Labour Market Programmes in Ireland." *European Sociological Review* 18:65-83.
O'Donovan, M. 1990. "Schooling for sub-employment: A case study of VPTP." *Irish Educational Studies* 9:145-157.
O'Hara, P. 1998. *Partners in Production?:Women, Farm and Family in Ireland.* New York: Oxford University Press.

O'Hearn. D. 2000. "Globalization, "New Tigers", and the end of the Developmental State? The Case of the Celtic Tiger." *Politics and Society* 67-92.
O'Kenndey, M. and B Whelan. 1989. "The ESRI survey of school principals and participants in relation to the VPTP 1987/88."
OECD, Organisation for Economic Co-operation and Development. 2000. *From initial education to working life: Making transitions work.* Paris: Organisation for Economic Co-operation and Development.
—. 2002. *Education at a Glance: OECD Indicators.* Paris: Organisation for Economic Co-operation and Development
—. 2002. "OCED Employment Outlook 2002: Recent Labour Market Developments and Prospects."
—. 2004. *Completing the Foundation for Lifelong Learning - An OECD Survey of Upper Secondary Schools.* Paris: Organisation for Economic Co-Operation and Development.
Paterson, L. 1991a. "Trends in Attainment in Scottish Secondary Schools" in S.W. Raudenbush and J.D Williams (eds) *Schools, Classrooms and Pupils: International Studies of Schooling from a multilevel perspective.* San Diego: Academic Press Inc.
—. and H. Goldstein. 1991b. "New Statistical Methods for Analysing Social Structures: an introduction to multilevel models." *British Educational Research Journal* 17:387-393.
—. 1991c. "Socio-economic Status and Educational Attainment: A Multi-Dimensional and Multi-Level Study." *Evaluation and Research in Education* 5:97-121.
—. and D. Raffe. 1995. "Staying-on in Full Time Education in Scotland, 1985-1991." *Oxford Review of Education* 21:2-23.
Paxton, P. 1999. "Is social capital declining in the United States? A multiple indicator assessment." *American Journal of Sociology* 105:88-127.
Payne, J. 2001. "Post-16 Students and Part-Time Jobs: Patterns and Effects ", edited by D. f. E. a. Skills: Queens Printer
—. 2003. "The impact of part-time jobs in years 12 and 13 on qualification achievement." *British Educational Research Journal* 29:599-611.
Person, A.E. and J.E. Rosenbaum. 2006. "Educational outcomes of labor-market linking and job placement for students at public and private 2-year colleges." *Economics of Education Review* 25:412-429.
Peterson, A.C. 1994. *Youth Unemployment and Society* Cambridge University Press: Cambridge.
Pigou, A.C. 1928. "An Analysis of Supply" *The Economic Journal.*
Portes, A. 1998. "Social Capital: Its Origins and Applications in Modern Sociology." *Annual Review of Sociology* 24:1-24.
Portes, A. 2000. "The Two Meanings of Social Capital." *Sociological Forum* 15:1-12.
Putnam, R.D. 2000. *Bowling Alone: The Collapse and Revival of American Community.* New York: Simon and Schuster.
Raudenbush, S.W. and A.S. Bryk. 2002. *Hierarchial Linear Models Applications and Data Analysis Methods Second Edition* Thousand Oaks, London, New Delhi: Sage.

Rees, A. and W. Gray. 1978. "Family Effects on Youth Unemployment" in R.B. Freeman and D.A Wise (eds) *The Youth Labour Market Problem: Its nature, causes and consequences.* Chicago: The University of Chicago Press.

Rees, D.I., Argys, L.M. and Brewer, D.J. 1996. "Tracking in the United States: Descriptive statistics from NELS." *Economics of Education Review* 15:83-89.

Raffe, D. 1985. "Degrees of Informality: Methods of job placement among Scottish school leavers." *British Journal of Guidance and Counselling* 13:292-307.

—. 2001. The Role of Vocational Training and Education in the Combat Against Youth Unemployment in C.Groth and W. Maennig (eds) *Strategies against Youth Unemployment: An International Comparison* pp31-104. Berlin: Peter Lang.

—. 2003a. "Coming to Terms with the longitudinal: cross-national comparisons of education-work transitions." in *Les Donnees Longitudinales dans l'analyse du marche du travail*, edited by A. Degenne, J. F. Giret, Y. Grelet and P. Werquin. Caen.

—. 2003b. "Pathways Linking Education and Work: A Review of Concepts, Research and Policy Debates." *Journal of Youth Studies* 6.

Rahikainen, M. 2001. "Historical and present-day child labour: is there a gap or a bridge between them?" *Continuity and Change* 16:137-156.

—. 2004. *Centuries of child labour: European experiences from the seventeenth to the twentieth century.* Aldershot, Hampshire, England, Burlington, VT: Ashgate.

Randles, E. 1975. *Post-primary education in Ireland, 1957-1970.* Dublin: Veritas Publications in cooperation with the Catholic Secretariat for Secondary Schools.

Rasbash, J., F. Steele, W. Browne and B. Prosser. 2005. A Users Guide to *MLwiN*: Version 2.0. Printed from Centre for Multilevel Modelling Website, University of Bristol, October 2005.

Rees, A. and W. Gray. 1978. "Family Effects on Youth Employment " in *The Youth Labour Market Problem: Its Nature, Causes and Consequences*, edited by R. B. Freeman and D. A. Wise. Chicago and London: The University of Chicago Press.

Rees, D.I., L.M. Argys and D.J. Brewer. 1996. "Tracking in the United States: Descriptive statistics from NELS" *Economics of Education Review* 15:83-89.

Rhum, C.J. 1997. "Is High School Employment Consumption or Investment?" *Journal of Labor Economics* 15:735-776.

Rindfuss, R., C.G. Swicegood and R. Rosenfeld. 1987. "Disorder in the Life Course: How Common and Does it Matter?" *American Sociological Review* 52:785-.

Robins, J. 1980. *The Lost Children: A study of Charity Children in Ireland 1700-1900.* Dublin: Institute of Public Administration.

Romani, C. and P. Werquin. 1999. "Alternating Training and the School-to-Work Transition: Programs, Assessment, Prospects." in *International Perspectives on The School to Work Transition* edited by D. Stern and D. A. Wagner. Cresskill, New Jersey: Hampton Press Inc.

Rosen, S. 1977. *Human Capital: A survey of empirical research* Research in Labor Economics.

Rosenbaum, J.E. 1980. "Track misperceptions and frustrated college plans: An analysis of the effects of tracks and track perceptions in the National Longitudinal Survey." *Sociology of Education,* 49:512-525.
—. and K. Takehiko. 1989. "From High School to Work: Market and Institutional Mechanisms in Japan." *The American Journal of Sociology* 94:1334-65.
—. and K. Takehiko, R. Settersten and T. Maier. 1990. "Market and Network Theories of the Transition from High School to Work: Their Application to Industralised Societies." *Annual Review of Sociology* 16:263-299.
—. and S. DeLuca, S.R. Miller and K. Roy. 1999. "Pathways into work: Short- and Long-term effects of personal and institutional ties." *Sociology of Education* 72:179-196.
—. and S. Alter Jones. 2000. "Interactions between High Schools and Labour Markets." Pp. 411-436 in *Handbook of the Sociology of Education*, vol. 1, edited by M. T. Hallinan. New York; London: Kluwer Academic/Plenum.
Rosenbaum, P.R. and D.B. Rubin. 1983. "The Central Role of the Propensity Score in Observational Studies" *Biometrika* 70:212-18.
—. 1984. "Reducing Bias in Observational Studies Using Subclassification on the Propensity Score" *Journal of the American Statistical Association* 79:516-524.
Rubin, D.B. 2006. *Matched Sampling for Causal Effects* Cambridge: Cambridge University Press.
Russell, H. and P.J. O'Connell. 2001. "Getting a Job in Europe: The Transition from Unemployment to Work among Young People in Nine European Countries." *Work, Employment and Society* 15:1-24.
Ryan, P., P. Garonna and R. Edwards. 1991. *The problem of youth: the regulation of youth employment and training in advanced economies*. London: Macmillan.
Ryan, P. 2001. " The school to work transition: problems and indicators" in Clermont, A.N., C. Pontecorvo, L. Resnick, T. Zittoun and B. Burges (eds) *Youth Learning and Society* Cambridge: Cambridge University Press.
Saunders, L, S. Stoney and P. Weston. 1997. "The Impact of a work-related curriculum on 14 to 16 year olds." *Journal of Education and Work* 10:151-167.
Schiff, M. 1992. "Social capital, Labor Mobility and Welfare." *Rationality and Society* 4:157-175.
Schill, J. W., McCartin, R., and Meyer, K. (1985). "Youth employment: Its relationship to academic and family variables." *Journal of Vocational Behaviour* 26:155-163
Schoenhals, M, Tienda, M. and Schneider, B. 1998. "The Educational and Personal Consequences of Adolescent Employment" *Social Forces* 77:723-762.
Schultz, T.W. 1961. "Investment in Human Capital" *The American Economic Review 1961.*
Sewell, W., H, Archibald, O. Haller and A. Portes.1969. "The Educational and Early Occupational Status Attainment Process" *American Sociological Review* 34:82-92.
Sewell, W., H, Archibald, O. Haller and G. Ohlendorf.1970. "The Educational and Early Occupational Status Attainment Process: Replication and Revision" *American Sociological Review* 34:1014-1024.

Sexton, J. J., B. Whelan and J. A. Williams. 1988. *Transition from school to work and early labour market experience*. Dublin: Economic and Social Research Institute.
—. 2001. "Labour Shortages and Skills Gaps in Ireland." *European Employment Observatory Review*.
Shavit, Y. and V. Kraus. 1990. "Educational Transitions in Israel: A Test of the Industrialisation and Credentialism Hypotheses." *Sociology of Education* 63:133-141.
—. and W. Muller. 2000. *From School to Work: A comparative study of Educational Qualifications and Occupational Destinations.* Oxford: Oxford University Press.
Shilling, C. 1991. "Labouring at School: Work-Experience in the Technical and Vocational Education Initiative." *Work Employment and Society* 5:59-80.
Singh, K. 1998. "Part-Time Employment in High School and Its Effect on Academic Achievement (Review) " *The Journal of Educational Research* 91:
Smith, P. J., J. Dalton and R. Dolheguy. 2004. "Student experiences of work placement in school-based vocational programs." *Education and Training* 46:262-268.
Smith, S.S. and J. Kulynych. 2002. "It May Be Social, but Why Is It Capital? The Social Construction of Social Capital and the Politics of Language." *Politics and Society* 30:149-186.
Smyth, E. and P. Surridge. 1996. "School to work transitions in Ireland and Scotland, 1979-1991." *Labour Market Review* 6.
—. 1999a. "Educational Inequalities Among School Leavers in Ireland 1979-1994." *The Economic and Social Review* 30:267-284.
—. 1999b. *Do Schools Differ? Academic and Personal Development among Pupils in the Second-Level Sector*. Dublin: The Oak Tree Press in association with The Economic and Social Research Institute.
—. and D. Byrne and C. Hannan. 2004a. *The Transition Year Programme: an assessment*. Dublin: The Liffey Press in association with the Economic and Social Research Institute.
—. and S. McCoy and M. Darmody. 2004b. *Moving up: the experiences of first-year students in post-primary education: information for schools, teachers and parents*. Dublin: NCCA.
—. , A. Dunne, M. Darmody, and S. McCoy.2007. *Gearing up for the Exam: The experiences of Junior Certificate students* Dublin: The Liffey Press in association with The Economic and Social Research Institute.
Snijders, T. and R. Bosker. 2000. *Multilevel Analysis: An introduction to basic and advanced multilevel modelling*. London: Sage Publications.
Solga, H. 2004. "Increasing risks of stigmatization: Changes in school-to-work transitions of less-educated West Germans." *Yale Journal of Sociology* 2:100-130.
Sorokin, P.A. 1927. *Social and Cultural Mobility.* Harper & Brothers: New York.
Stack, N., T. Cammock, J. McKechnie and S. Hobbs. 1998. "Child employment and female gender-role stereotypes in the Republic of Ireland." *Irish Journal of Psychology* 19:358-367.
—. 2001. "Developmental significance of part time employment for Irish adolescents." *The Irish Journal of Psychology* 22:39-54.

Steel, L. 1991. "Early work experience among white and non-white youths. Implications for subsequent enrollment and employment." *Youth and Society* 22:419-47.

Steinberg, L.D., E. Greenberger, M. Jacobi and L. Garduque. 1981."Early Work Experience - A Partial Antidote for Adolescent Egocentrism." *Journal of Youth and Adolescence* 10:141-157.

—. 1982. "Jumping off the Work Experience Bandwagon." *Journal of Youth and Adolescence* 11:183-205.

—. and Ellen Greenberger. 1986. *When teenagers work: the psychological and social costs of adolescent employment.* New York: Basic Books.

—. Steinberg, L.D., Fegley and Dornbusch. 1993. "Negative impact of part-time work on adolescent adjustment: Evidence from a longitudinal study." *Developmental Psychology* 29:171-180.

Steinbricker, R. 2003. "Work During School and Academic Performance." *Journal of Labor Economics* 21:473.

Stephenson, S. 1981. "In-School Labour Force Status and Post-School Wage Rates of Young Men" *Applied Econometrics* 13, 279-302.

Stern, D. 1984. "School-Based Enterprise and the Quality of Work Experience - a Study of High-School-Students." *Youth & Society* 15:401-427.

—. 1987. "When Teenagers Work - the Psychological and Social Costs of Adolescent Employment - Greenberger,E, Steinberg,L." *Children and Youth Services Review* 9:291-292.

—. and D. Eichorn. 1989. *Adolescence and Work: Influences of Social Structure, Labor Markets and Culture* London: LEA.

—. M. Mcmillion, C. Hopkins and J. Stone. 1990a. "Work Experience for Students in High-School and College." *Youth & Society* 21:355-389.

—. J. R. Stone, C. Hopkins and M. Mcmillion. 1990b. "Quality of Students Work Experience and Orientation toward Work." *Youth & Society* 22:263-282.

—. 1994. *Research on School - to - Work Transition Programs in the United States* Berkeley, C.A.: National Centre for Research in Vocational Education/Office of Vocational and Adult Education

—. and N. Finkelstein, M. Urquiola and H. Cagampang. 1997. "What difference does it make if school and work are connected? Evidence on co-operative education in the United States." *Economics of Education Review* 16:213-229.

—. M. L. Rahn and Y. P. Chung. 1998. "Design of work-based learning for students in the United States." *Youth & Society* 29:471-502.

—. and D.A. Wagner. 1999. *International perspectives on the school-to-work transition.* Cresskill, N.J.: Hampton Press.

Stevenson, W. 1978. "The relationship between early work experience and future employment ability" in *The Lingering Crisis of Youth Unemployment* eds A. Adams and G. Magnum, Kalamazoo, MI: Upjohn Institute for Employment Research 93-124.

Stiglitz, J.E. 1975. "The Theory of 'Screening', Education and the Distribution of Income." *The American Economic Review* .

Stinebrickner, T.R. and R. Stinebrickner. 2003. "Working during school and academic performance" *Journal of Labor Economics* 21:449-472.

Stone, J.R. and J. T. Mortimer. 1998. "The Effect of Adolescent Employment on Vocational Development: Public and Educational Policy Implications." *Journal of Vocational Behaviour* 53:184-214.
—. 1990. "Adolescents perceptions of their work: School supervised and non school supervised." *Journal of Vocational Education Research* 15:31-53.
Strathdee, R. 2001. "Changes in Social Capital and School-to-Work Transitions." *Work, Employment and Society* 15:311-326.
—. 2005. *Social exclusion and the remaking of social networks*. Aldershot: AshgatePublishing.
Tienda, M. and H. Stier. 1996. "The Wages of Race: Color and Employment Opportunity in Chicago's Inner City" in Pedraza, S. and R.G. Rumbaut (eds) *Origins and Destinies: Immigration, Race and Ethnicity in America.* Belmont: Wadsworth Publishing Company.
Tilly, L.A. and J.W. Scott. 1978. *Women, Work and Family Routledge.*
Tuohy, D. 2002. "Developments in vocational education in Ireland." Pp. 103-112 in *Shaping Flexibility in Vocational Education and Training*, edited by W. J. Nijhof, A. Heikkinen and L. Nieuwenhuis. Dordrecht/Boston/London: Kluwer Academic Publishers.
—. and E. Doyle. 1994. "New Directions in Irish Secondary Education" *Studies* 83:332-436.
Vanfossen, B.E., Jones, J.D., and Spade, J.Z. 1987. "Curriculum tracking and status maintenance." *Sociology of Education* 60: 104-122.
Vickerstaff, S.A. 2003. "Apprenticeship in the 'golden age': were youth transitions really smooth and unproblematic back then?" *Work, Employment and Society* 17:269-287.
Walsh, B. 1985. "Youth Unemployment: The Economic Background." *Administration* 33:151-165.
Walther, A., B. Stauber and A. Pohl. 2005. "Informal networks in Youth Transitions in West Germany: Biographical Resource or Reproduction of Social Inequality?" *Journal of Youth Studies* 8:221-240.
Warren, J. R., P. C. LePore and R. D. Mare. 2000. "Employment during high school: Consequences for students' grades in academic courses." *American Educational Research Journal* 37:943-969.
—. 2002. "Reconsidering the Relationship between Student Employment and Academic Outcomes: A New Theory and Better Data." *Youth and Society* 33:366-393.
—. and J.C. Lee. 2003. "The impact of adolescent employment on high school drop-out: Differences by individual and labor-market characteristics." *Social Science Research* 98-128.
Watson, D. 2005. *Mapping Poverty: national, regional and county patterns*. Dublin: IPA:Combat Poverty Agency.
Whelan, C.T. and D.F. Hannan. 1999. "Class Inequalities in Educational Attainment among the Adult Population in the Republic of Ireland" *The Economic and Social Review* 30:285-307.
Wickham, J. and G.W. Boucher. 2004. "Training Cubs for the Celtic Tiger: the volume production of technical graduates in the Irish educational system." *Journal of Education and Work* 17:377-395.

Williams, K. and J. O'Shea. 1981. "General Studies in the Pre-Employment Course: The Ballymun Experience." *Irish Educational Studies* 1:29-.

Willis, P. 1977. *Learning to Labour: How working class kids get working class jobs.* Farnborough: Teakfield.

Wolbers, M.H.J. 2003. "Learning and Working: double statuses in youth transition." in *Transitions from education to work in Europe: the integration of youth into EU labour markets*, edited by W. Muller and M. Gangl. Oxford Oxford University Press

Zietz, J. and P. Joshi. 2005. "Academic choice behaviour of high school students: economic rationale and empirical evidence." *Economics of Education Review* 24:297-308.